
MORSE

(TW)

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Mpsrch_dp protein - protein database search, using Smith-Waterman algorithm

Run on: Thu Apr 1 07:24:54 1999; MasPar time 2.88 Seconds

Tabular output not generated. 67.419 Million cell updates/sec

Title: >US-08-927-939-1
Description: (1-12) from US08927939.pep
Perfect Score: 97
Sequence: 1 EICADPKQKRWQ 12

Scoring table: PAM 150
Gap 15

Searched: 131922 segs, 16180660 residues

Post-processing: Minimum Match 0%
Listing first 100 summaries

Database:

a-geneseq32
1:part1 2:part2 3:part3 4:part4 5:part5 6:part6 7:part7
8:part8 9:part9 10:part10 11:part11 12:part12 13:part13
14:part14 15:part15 16:part16 17:part17 18:part18
19:part19 20:part20 21:part21 22:part22 23:part23
24:part24 25:part25 26:part26 27:part27 28:part28
29:part29

Statistics: Mean 18.390; Variance 63.736; scale 0.289

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description	Pred. No.
1	97	100.0	66 24	W13598	Monocyte chemoattract	4.79e-03
2	97	100.0	67 24	W13599	Monocyte chemoattract	4.79e-03
3	97	100.0	68 24	W13597	Monocyte chemoattract	4.79e-03
4	97	100.0	69 14	R87678	des(2-8) MCP-1.	4.79e-03
5	97	100.0	69 24	W13596	Monocyte chemoattract	4.79e-03
6	97	100.0	76 15	R87680	Monocyte chemoattract	4.79e-03
7	97	100.0	76 21	W11131	Mature human monocyte	4.79e-03
8	97	100.0	76 1	R28660	Mature human monocyte	4.79e-03
9	97	100.0	76 1	P90292	Peptide from human g1	4.79e-03
10	97	100.0	76 14	R87675	(28-Asp) MCP-1.	4.79e-03
11	97	100.0	76 20	W09374	Monocyte chemoattract	4.79e-03
12	97	100.0	76 10	R53398	Sense MCP-1.	4.79e-03
13	97	100.0	76 14	R87677	(3-Ala) MCP-1.	4.79e-03
14	97	100.0	76 14	R87676	(24-Arg) MCP-1.	4.79e-03
15	97	100.0	77 15	R86859	Mature MCP-1.	4.79e-03
16	97	100.0	99 5	R28663	MCF.	4.79e-03
17	97	100.0	99 2	P95387	Human monocyte chemo-	4.79e-03
18	97	100.0	99 13	R70800	Chemoattractant prote	4.79e-03

19	97	100.0	99 14	R73914	Human monocyte chemo	4.79e-03
20	93	95.9	71 27	W22675	Dro13+ chemokine beta	1.28e-02
21	93	95.9	75 27	W22673	Bac 3 chemokine beta1	1.28e-02
22	93	95.9	77 27	W22672	Bac 2 chemokine beta1	1.28e-02
23	93	95.9	79 27	W22674	Dro11/2 chemokine bet	1.28e-02
24	93	95.9	82 27	W22671	Bac 1 chemokine beta1	1.28e-02
25	93	95.9	82 24	W17665	Stem cell mobilising	1.28e-02
26	93	95.9	98 17	R33087	Human chemokine beta-	1.28e-02
27	93	95.9	98 28	W30191	Monocyte chemoattract	1.28e-02
28	93	95.9	98 27	W22670	Human chemokine beta1	1.28e-02
29	93	95.9	99 2	R06398	Human MCP precursor.	1.28e-02
30	92	94.8	76 5	R26580	Sequence of bovine p6	1.63e-02
31	92	94.8	99 5	R26581	Sequence of p6 precu	1.63e-02
32	92	94.8	67 14	R73915	Human monocyte chemo	2.65e-02
33	90	92.8	99 13	R70801	Chemoattractant prote	2.65e-02
34	90	92.8	109 2	R24353	Cytokine encoded by c	3.38e-02
35	89	91.8	82 29	W44721	Amino acid sequence o	3.38e-02
36	89	91.8	97 21	W10099	Human eotaxin.	3.38e-02
37	89	91.8	97 21	W00667	Pancreas expressed ch	3.38e-02
38	89	91.8	97 24	W14990	Human eosinocyte CC t	3.38e-02
39	84	86.6	73 13	R70252	Eotaxin chemoattracta	1.13e-01
40	84	86.6	96 24	W14991	Guinea pig eosinocyte	1.13e-01
41	82	84.5	72 13	R70804	Chemoattractant MCP-2	1.82e-01
42	82	84.5	109 29	W42072	Human MC proproctein.	1.82e-01
43	82	84.5	60 24	W26655	Human beta-chemokine	1.82e-01
44	81	83.5	89 14	R76127	Stem cell mobilising	2.31e-01
45	81	83.5	89 21	W07204	Macrophage inflammato	2.31e-01
46	81	83.5	89 25	W23643	Human cytokine beta-1	2.31e-01
47	81	83.5	89 25	W23643	Human dendritic cell	2.31e-01
48	81	83.5	395 28	W23347	Novel murine CX3C 395	2.31e-01
49	81	83.5	395 28	W23347	Mouse neutrotactin.	2.31e-01
50	77	79.4	69 7	R39137	LD78 pHe28>Glu, Glu56	5.94e-01
51	77	79.4	70 24	W17661	Stem cell mobilising	5.94e-01
52	77	79.4	73 13	R70251	Eotaxin chemoattracta	5.94e-01
53	77	79.4	119 17	R85779	Human monocyte chemot	5.94e-01
54	77	79.4	119 22	W07845	Human monocyte chemot	5.94e-01
55	76	78.4	69 1	P90506	CDNA from murine cell	7.52e-01
56	76	78.4	69 21	W01802	Murine macrophage-der	7.52e-01
57	76	78.4	69 24	W16319	Inflammatory cytokine	7.52e-01
58	76	78.4	74 7	R38924	MIP-1alpha.	7.52e-01
59	76	78.4	79 24	W17664	Stem cell mobilising	7.52e-01
60	76	78.4	92 21	W01804	Murine macrophage-der	7.52e-01
61	76	78.4	92 1	P93590	Deduced sequence of M	7.52e-01
62	76	78.4	134 21	W00668	Pancreas expressed ch	7.52e-01
63	75	77.3	29 4	R20237	NAF(44-72) peptide in	9.50e-01
64	75	77.3	39 22	W04515	Interleukin-8(34-72)	9.50e-01
65	75	77.3	67 7	R38087	Modified human interl	9.50e-01
66	75	77.3	67 7	R38086	Modified human interl	9.50e-01
67	75	77.3	68 7	R38084	Modified human interl	9.50e-01
68	75	77.3	68 7	R38085	Modified human interl	9.50e-01
69	75	77.3	69 7	R38940	LD78 pHe28>Glu, Glu48	9.50e-01
70	75	77.3	69 7	R38082	Modified human interl	9.50e-01
71	75	77.3	72 27	W1519	Neutrophil chemoattract	9.50e-01
72	75	77.3	72 22	W04516	Interleukin(1-72) pro	9.50e-01
73	75	77.3	72 20	R99812	Chemokine-like protei	9.50e-01
74	75	77.3	72 20	R99805	Soluble interleukin-8	9.50e-01
75	75	77.3	72 11	R70183	Human interleukin-8	9.50e-01
76	75	77.3	72 7	R38080	Mutant human IL-8, S1	9.50e-01
77	75	77.3	72 23	W25708	Mutant human IL-8, S1	9.50e-01
78	75	77.3	72 23	W25707	Mutant human IL-8, Y1	9.50e-01
79	75	77.3	72 23	W25710	Mutant human IL-8, D4	9.50e-01
80	75	77.3	72 23	W25709	Mutant human IL-8, V4	9.50e-01
81	75	77.3	72 23	W25714	Mutant human IL-8, Y1	9.50e-01
82	75	77.3	72 26	P81838	Sequence of a synthe	9.50e-01
83	75	77.3	72 23	W25713	Mutant human IL-8, F2	9.50e-01
84	75	77.3	72 23	W25701	Mutant human IL-8, R4	9.50e-01
85	75	77.3	72 20	R39806	Chemokine-like protei	9.50e-01
86	75	77.3	72 20	R39806	Chemokine-like protei	9.50e-01
87	75	77.3	72 1	P90913	Sequence of a synthe	9.50e-01
88	75	77.3	73 1	P90913	Human neutrophil acti	9.50e-01
89	75	77.3	73 20	R99818	Chemokine-like protei	9.50e-01
90	75	77.3	73 20	R99816	Chemokine-like protei	9.50e-01
91	75	77.3	73 20	R99815	Chemokine-like protei	9.50e-01

92 75 77.3 73 20 R39817 Chemokine-like protel 9.50e-01
 93 75 77.3 73 20 R39814 Interleukin-8. 9.50e-01
 94 75 77.3 77 1 R90017 Human neutrophil acti 9.50e-01
 95 75 77.3 77 3 R13168 [Ala 11-8177] leukocy 9.50e-01
 96 75 77.3 89 13 R75419 Human SDF-1-alpha. 9.50e-01
 97 75 77.3 87 12 R70994 Protein encoded by cd 9.50e-01
 98 75 77.3 93 13 R75420 Human SDF-1-beta. 9.50e-01
 99 75 77.3 99 1 R05239 Human neutrophil chem 9.50e-01
 100 75 77.3 99 2 P93631 Amino acid sequence o 9.50e-01

ALIGNMENTS

RESULT 1
 ID W13598 standard; peptide: 66 AA.

AC W13598;
 DE 07-NOV-1997 (first entry)
 KW Monocyte chemoattractant protein analogue MCP-1 (10-76).
 KW Truncated monocyte chemoattractant protein-1; inhibitor;
 KW receptor binding; anti-inflammatory; basophil; lymphocyte; allergy;
 KW chronic inflammatory disease; arthritis; arteriosclerosis;
 KW lung disease.
 OS Homo sapiens.
 PN CA2152141-A.
 PD 20-DEC-1996.
 PF 19-JUN-1995; 152141.
 PR 19-JUN-1995; CA-152141.
 PA (LEWIS I).
 PI Gong J, Lewis I;
 DR WPI: 97-165844/16.
 PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
 PT lacks MCP-1 activity and inhibits receptor binding, useful as
 PT anti-inflammatory agent
 PS Disclosure; Page 5; 27pp; English.
 CC The present sequence represents an analogue, MCP-1 (10-76), of monocyte
 CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
 CC N-terminal amino acids 1-9 of MCP-1, acts as an antagonist of MCP-1
 CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
 CC receptor. The analogue is useful as an anti-inflammatory agent to block
 CC the effects of MCP-1 which is an inflammatory mediator causing migration
 CC of monocytes and other cells e.g. basophils and lymphocytes into
 CC inflammation sites. MCP-1 has been implicated in allergic and chronic
 CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
 CC diseases. The analogue competes more effectively with MCP-1 for binding
 CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
 CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
 CC with 75:1 for prior art mutant 7ND.
 SQ Sequence 66 AA;

Query Match 100.0%; Score 97; DB 24; Length 66;
 Best Local Similarity 100.0%; Pred. No. 4.79e-03;
 Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 40 eicadpdkxwq 51
 |||||
 QY 1 EICADPKOKRWQ 12

RESULT 2
 ID W13599 standard; peptide: 67 AA.
 AC W13599;
 DE 07-NOV-1997 (first entry)
 KW Monocyte chemoattractant protein analogue MCP-1 (11-76).
 KW Truncated monocyte chemoattractant protein-1; inhibitor;
 KW receptor binding; anti-inflammatory; basophil; lymphocyte;
 KW chronic inflammatory disease; arthritis; arteriosclerosis;
 KW lung disease.
 OS Homo sapiens.
 PN CA2152141-A.
 PD 20-DEC-1996.
 PF 19-JUN-1995; 152141.
 PR 19-JUN-1995; CA-152141.
 PA (LEWIS I).

PI Gong J, Lewis I;
 DR WPI: 97-165844/16.
 PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
 PT lacks MCP-1 activity and inhibits receptor binding, useful as
 PT anti-inflammatory agent
 PS Disclosure; Page 5; 27pp; English.
 CC The present sequence represents an analogue, MCP-1 (11-76), of monocyte
 CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
 CC N-terminal amino acids 1-10 of MCP-1, acts as an antagonist of MCP-1
 CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
 CC receptor. The analogue is useful as an anti-inflammatory agent to block
 CC the effects of MCP-1 which is an inflammatory mediator causing migration
 CC of monocytes and other cells e.g. basophils and lymphocytes into
 CC inflammation sites. MCP-1 has been implicated in allergic and chronic
 CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
 CC diseases. The analogue competes more effectively with MCP-1 for binding
 CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
 CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
 CC with 75:1 for prior art mutant 7ND.
 SQ Sequence 67 AA;

Query Match 100.0%; Score 97; DB 24; Length 67;
 Best Local Similarity 100.0%; Pred. No. 4.79e-03;
 Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 41 eicadpdkxwq 52
 |||||
 QY 1 EICADPKOKRWQ 12

RESULT 3
 ID W13597 standard; peptide: 68 AA.
 AC W13597;
 DE 07-NOV-1997 (first entry)
 KW Monocyte chemoattractant protein analogue MCP-1 (9-76).
 KW Truncated monocyte chemoattractant protein-1; inhibitor;
 KW receptor binding; anti-inflammatory; basophil; lymphocyte; allergy;
 KW chronic inflammatory disease; arthritis; arteriosclerosis;
 KW lung disease.
 OS Homo sapiens.
 PN CA2152141-A.
 PD 20-DEC-1996.
 PF 19-JUN-1995; 152141.
 PR 19-JUN-1995; CA-152141.
 PA (LEWIS I).
 PI Gong J, Lewis I;
 DR WPI: 97-165844/16.
 PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
 PT lacks MCP-1 activity and inhibits receptor binding, useful as
 PT anti-inflammatory agent
 PS Claim 7; Page 5; 27pp; English.
 CC The present sequence represents an analogue, MCP-1 (9-76), of monocyte
 CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
 CC N-terminal amino acids 1-8 of MCP-1, acts as an antagonist of MCP-1
 CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
 CC receptor. The analogue is useful as an anti-inflammatory agent to block
 CC the effects of MCP-1 which is an inflammatory mediator causing migration
 CC of monocytes and other cells e.g. basophils and lymphocytes into
 CC inflammation sites. MCP-1 has been implicated in allergic and chronic
 CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
 CC diseases. The analogue competes more effectively with MCP-1 for binding
 CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
 CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
 CC with 75:1 for prior art mutant 7ND.
 SQ Sequence 68 AA;

Query Match 100.0%; Score 97; DB 24; Length 68;
 Best Local Similarity 100.0%; Pred. No. 4.79e-03;
 Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 42 eicadpdkxwq 53
 |||||
 QY 1 EICADPKOKRWQ 12

RESULT 4
ID R87678 standard; protein; 69 AA.
AC R87678;
DE 21-FEB-1996 (first entry)
des(2-8) MCP-1.
KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
OS Homo sapiens.
FH Key
FT modified_site 2.3
FT /note- "amino acids 2-8 of the native protein have
FT been deleted between these residues"
FT disulfide_bond 4..29
FT disulfide_bond 5..45
FT MO9513295-A1.
PD 18-MAY-1995.
PF 07-NOV-1994; U12874.
PR 12-NOV-1993; US-152301.
PA (DAND) DANA FARBER CANCER INST INC.
PI Rollins B, Zhang YJ;
PW: 95-215051/28.
PT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
PT capable of inhibiting the monocyte chemo-attractant activity of
PT endogenous MCP-1 and can be used to treat restenosis
PS Claim 4; Page 11; 22pp; English.
CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
CC that they inhibit the monocyte chemoattractant activity of endogenous
CC MCP-1, provided that the derivative has not been modified by the
CC substitution of 28-Tyr by Ieu and/or 30-Arg by Val. Preferred mutations
CC are: (1) substitution of 28-Tyr by aspartate; (2) substitution of 24 Arg
CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
CC acids 2-8. The present sequence is a specifically claimed human MCP-1
CC derivative based on the parent protein disclosed in Rollins, Molecular
CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC The peptides can be used to prevent restenosis, e.g. in patients
CC undergoing coronary artery angioplasty.
SQ Sequence 69 AA;
Query Match 100.0%; Score 97; DB 14; Length 69;
Best Local Similarity 100.0%; Pred. No. 4.79e-03;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Db 43 eicadpdkqkwg 54
|||||
OY 1 EICADPKQKQKWQ 12
RESULT 5
ID W13596 standard; peptide; 69 AA.
AC W13596;
DE 07-NOV-1997 (first entry)
DE Monocyte chemoattractant protein analogue MCP-1 (8-76).
KW Truncated monocyte chemoattractant protein-1; inhibitor;
KW receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
KW lung disease.
US Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PA (LEMI/) LEWIS I.
PI Gong J, Lewis I;
PW: 97-165844/16.
PT N-terminally truncated monocyte chemo-attractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Claim 5; Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (8-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-7 of MCP-1, acts as an antagonist of MCP-1

CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammatory sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 69 AA;
Query Match 100.0%; Score 97; DB 24; Length 69;
Best Local Similarity 100.0%; Pred. No. 4.79e-03;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Db 43 eicadpdkqkwg 54
|||||
OY 1 EICADPKQKQKWQ 12
RESULT 6
ID R87680 standard; protein; 76 AA.
AC R87680;
DE 05-MAR-1996 (first entry)
DE Monocyte chemotactic activating factor for use as wound remedy.
KW Monocyte chemotactic activating factor; MCAF; wound remedy.
OS Homo sapiens.
PN MO9507710-A1.
PD 23-MAR-1995.
PF 13-SEP-1994; J01512.
PR 13-SEP-1993; JP-227385.
PA (TORA) TORAY IND INC.
PI Matsushima K, Naruto M;
PW: 95-11181/17.
PT Wound treatment using monocyte chemotactic factor - has potent
PT therapeutic effect on skin wounds and ulcers
PS Disclosure; Page 12; 22pp; Japanese.
CC The invention relates to a new remedy for curing wounds which, instead
CC of comprising a growth factor, comprises a monocyte chemotactic
CC activating factor (MCAF) or its variants or derivatives. The factor has
CC potent effect on skin wounds and ulcers. The present sequence is human
CC MCAF, the activity of which is exemplified as the new remedy.
SQ Sequence 76 AA;
Query Match 100.0%; Score 97; DB 15; Length 76;
Best Local Similarity 100.0%; Pred. No. 4.79e-03;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Db 50 eicadpdkqkwg 61
|||||
OY 1 EICADPKQKQKWQ 12
RESULT 7
ID W11131 standard; protein; 76 AA.
AC W11131;
DE 10-JUN-1997 (first entry)
DE Mature human monocyte chemoattractant protein-1 (MCP-1).
KW MCP-1; mature chemoattractant protein-1; cytokine; interleukin-8;
KW IL-8; neutrophil activating peptide; labelling; imaging; targeting;
KW radionuclide; infection; inflammation; neoplasm; atheromatous lesion;
KW restenosis.
OS Homo sapiens.
FH Key
FT misc_difference 1
FT Location/Qualifiers
FT /note- "X- any amino acid"
FT US5605671-A.
PD 25-FEB-1997.
PF 05-OCT-1992; 956862.
PR 05-OCT-1992; US-956863.
PR 05-OCT-1992; US-956862.
PR 29-APR-1994; US-235659.

PA (MLCN) MALLINCKRODT MEDICAL INC.
 PA (UNMI) UNIT MICHIGAN.
 PI Kunkel SL, Strieter RM;
 DR WPI: 97-153541/14.
 PT Radio:labelling neutrophil-activating peptide(s) - for imaging
 PT targeted delivery of radioactive agent
 PS Example 10: Column 19-20: 15pp; English.
 CC W1131 represents mature human monocyte chemoattractant protein-1
 CC (MCP-1). MCP-1 was radiolabeled and used in a method for
 CC imaging a target site in vivo in an animal. Labeled MCP-1 was allowed
 CC to accumulate at a target site (having MCP-1 receptors) in the animal
 CC and detected so as to image the target site. Any Cys-Cys or Cys-Xaa-Cys
 CC chemokine carrying either iodine-123 or iodine-131 can be used in the
 CC method. Especially preferred is neutrophil activating peptide-2 (NAP-2)
 CC which recognises interleukin-8 receptors and is labelled with
 CC technetium-99m, indium-111, copper-62, rhodium-106 or rhodium-188.
 CC The method can be used for imaging a site of infection, inflammation,
 CC neoplasm, atheromatous lesion or restenosis.
 SQ Sequence 76 AA;

Query Match 100.0%; Score 97; DB 21; Length 76;
 Best Local Similarity 100.0%; Pred. No. 4.79e-03;
 Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 50 eicadpdkqkwq 61
 |||||||||||
 OY 1 EICADPRQKRWQ 12

RESULT 8
 ID R28660 standard; Protein; 76 AA.
 AC R28660;
 DT 24-MAR-1993 (first entry)
 DE MCF.
 KW Plasmid; monocyte chemotactic factor; MCF; translation;
 KW termination; terminator; initiation; ribosome binding site;
 KM RBS; promoter; tryptophan; repressor.
 OS Synthetic.
 PN W09219737-A.
 PD 12-NOV-1992.
 PF 07-APR-1992; J00550.
 PR 29-MAY-1991; JP-135950.
 PA (DAIN) DAINIPPON PHARM CO LTD.
 PI Fukui T, Matsuo N, Yamada M, Yamagishi J;
 DR WPI: 92-398664/48.
 DR N-PSDB; Q30745-46.
 PT Prod. of polypeptide(s) having monocyte chemotactic activity -
 PT using expression plasmids with E. coli elements and specific
 PT E.coli strains
 PS Claim 1: Page 48 + Page 36; 56pp; English.
 CC An expression plasmid, pHM483, for producing MCF(76) consisting
 CC of 76 amino acids was constructed. The prod. can be used for e.g.
 CC treating bacterial infectious diseases.
 SQ Sequence 76 AA;

Query Match 100.0%; Score 97; DB 5; Length 76;
 Best Local Similarity 100.0%; Pred. No. 4.79e-03;
 Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 50 eicadpdkqkwq 61
 |||||||||||
 OY 1 EICADPRQKRWQ 12

RESULT 9
 ID P90292 standard; peptide; 76 AA.
 AC P90292;
 DT 17-JAN-1990 (first entry)
 DE Peptide from human glioma cell line U-105MG.
 KW Glioma; leucocyte; chemotaxis; neoplasms.
 OS Human.
 FH key
 FT modified_site 1 Location/Qualifiers

FT /label- OTHER
 FT /note- "pyroglutamic acid"
 PD US7304234-A.
 PN 20-JUL-1989.
 PR 31-JAN-1989; 030423.
 PR 31-JAN-1989; US-304234.
 PA (USSH) US Dept. of Health and Human.
 PI Yoshimura T; Robinson E; Appella E; Leonard E.
 DR WPI: 89-263501/36.
 PT New peptide with specific chemotactic activity for monocytes - isolated
 PT from glioma or leucocyte cells, useful for treating infections and
 PT neoplasms.
 PS disclosure: page 3: 46pp; English.
 CC Peptide is derived from glioma cell line U-105MG (ATCC CRU9932) or from
 CC leukocytes and has mol. wt. 8400. Used to treat infections and neoplasms.
 SQ Sequence 76 AA;

Query Match 100.0%; Score 97; DB 1; Length 76;
 Best Local Similarity 100.0%; Pred. No. 4.79e-03;
 Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 50 eicadpdkqkwq 61
 |||||||||||
 OY 1 EICADPRQKRWQ 12

RESULT 10
 ID R87675 standard; protein; 76 AA.
 AC R87675;
 DT 21-FEB-1996 (first entry)
 DE (28-ASP) MCP-1.
 KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
 KW angioplasty.
 OS Homo sapiens.
 FH key
 FT modified_site 28 Location/Qualifiers
 FT /note- "1yr in the native sequence is replaced by asp"
 FT disulfide_bond 11..36
 FT disulfide_bond 12..52
 PN W09513295-A1.
 PD 18-MAY-1995.
 PF 07-NOV-1994; U12874.
 PR 12-NOV-1993; US-152301.
 PA (DAND) DANA FARBER CANCER INST INC.
 PI Rollins B, Zhang YJ;
 DR WPI: 95-215051/28.
 PT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
 PT capable of inhibiting the monocyte chemo-attractant activity of
 PT endogenous MCP-1 and can be used to treat restenosis
 PS Claim 3: Page 11; 22pp; English.
 CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
 CC that they inhibit the monocyte chemoattractant activity of endogenous
 CC MCP-1, provided that the derivative has not been modified by the
 CC substitution of 28-Tyr by leu and/or 30-Arg by Val. Preferred mutations
 CC by ppe; (3) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg
 CC acids 2-8. The present sequence is a specifically claimed human MCP-1
 CC derivative based on the parent protein disclosed in Rollins, Molecular
 CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
 CC The peptides can be used to prevent restenosis, e.g. in patients
 CC undergoing coronary artery angioplasty.
 SQ Sequence 76 AA;

Query Match 100.0%; Score 97; DB 14; Length 76;
 Best Local Similarity 100.0%; Pred. No. 4.79e-03;
 Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 50 eicadpdkqkwq 61
 |||||||||||
 OY 1 EICADPRQKRWQ 12

RESULT 11

ID M09374 standard; Protein; 76 AA.
AC W09374;
DT 21-MAR-1997 (first entry)
DE Monocyte Chemotactic protein 1.
KW Human; monocyte chemoattractant protein; antisense; inhibition;
KW mononuclear cell; lymphocyte; macrophage; smooth muscle cell;
KW vascular restenosis.
OS Homo sapiens.
FH Key
FT misc_difference 1 Location/Qualifiers
FT misc_difference 51 /note= "encoded by codon CAG"
FT misc_difference 65 /note= "encoded by codon AUG"
FT misc_difference 65 /note= "encoded by codon CAC"
PN US5571713-A.
PD 05-NOV-1996.
PE 22-OCT-1992; 965678.
PR 22-OCT-1992; US-965678.
PR 27-MAY-1994; US-250958.
PA (UNMT) UNIV MICHIGAN.
PI Kunkel SL, Lyle LR, Strieter RM;
PI WPI: 96-505405/50.
DR N-PSDB: T48092.
PT Anti-sense Monocyte Chemotactic Protein-1 oligo:nucleotide(s) -
PT useful for therapy or diagnosis of restenosis, etc.
PS Disclosure; Column 13-14; 16pp: English.
CC This is the amino acid sequence of the human monocyte chemoattractant
CC protein (MCP)-1, a member of the C-C chemokine family. MCP-1 is a potent
CC stimulator of monocyte chemotaxis and is produced by injured vascular
CC smooth cells thus attracting monocytes and macrophages which infiltrate
CC the injured area and release growth factor. This causes proliferation of
CC the vascular smooth cells resulting in restenosis. The gene sequence can
CC be used to generate antisense sequences e.g. T48093-7, which can be used
CC to inhibit in vitro MCP-1 prodn. by mononuclear cells e.g. lymphocytes or
CC macrophages, or smooth muscle cells, esp. in order to prevent vascular
CC restenosis.
SQ Sequence 76 AA:
Query Match 100.0%; Score 97; DB 20; Length 76;
Best Local Similarity 100.0%; Pred. No. 4.79e-03;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Db 50 eicadpdkxkwq 61
|||
1 EICADPKOKWQ 12
RESULT 12
ID R53398 standard; Protein; 76 AA.
AC R53398;
DT 15-DEC-1994 (first entry)
DE Sense MCP-1.
KW Antisense; RNA; DNA; monocyte chemotactic protein-1; MCP-1;
KW radionuclide; vascular restenosis; alpha; beta; emitting isotope;
KW diagnosis; monocytes; vascular injury.
OS Mammalian.
FH Key
FT misc_difference 1 Location/Qualifiers
FT misc_difference 1 /note= "Unspecified amino acid"
PN W09409128-A.
PD 28-APR-1994.
PE 20-OCT-1993; U10074.
PR 22-OCT-1992; US-965678.
PA (MLCW) MALLINCKRODT MEDICAL INC.
PI Lyle LR;
PI WPI: 94-151314/18.
DR Anti-sense monocyte chemotactic protein-1 oligo:nucleotide(s) and
PT peptide(s) - is used for inhibiting, treating or imaging areas of
PT vascular restenosis or potential restenosis
PS Disclosure; Page 5; 42pp: English.
CC The sequences given in R53398-99 represent sense and antisense
CC monocyte chemotactic protein-1 (MCP-1) respectively. These

CC oligonucleotides may be labelled with a radionuclide and use
CC therapeutically for the treatment of vascular restenosis.
CC Radioactively antisense MCP-1 compounds may be constructed using high
CC energy alpha or beta emitting isotopes rather than the gamma
CC emitters customarily used for diagnostic purposes. Antisense MCP-1
CC compounds inactivate MCP-1 or inhibit production of MCP-1 so that
CC monocytes are not attracted to the area of vascular injury and
CC proliferation of vascular cells is inhibited.
SQ Sequence 76 AA:
Query Match 100.0%; Score 97; DB 10; Length 76;
Best Local Similarity 100.0%; Pred. No. 4.79e-03;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Db 50 eicadpdkxkwq 61
|||
1 EICADPKOKWQ 12
Query Match 100.0%; Score 97; DB 14; Length 76;
Best Local Similarity 100.0%; Pred. No. 4.79e-03;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Db 50 eicadpdkxkwq 61
|||
1 EICADPKOKWQ 12
RESULT 14
ID R87676 standard; protein; 76 AA.
AC R87676;
DT 21-FEB-1996 (first entry)
DE (24-Arg) MCP-1.
KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
KW angioplasty.
OS Homo sapiens.
ID R87677 standard; protein; 76 AA.
AC R87677;
DT 21-FEB-1996 (first entry)
DE (3-Ala) MCP-1.
KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
KW angioplasty.
OS Homo sapiens.
FH Key
FT modified_site 3 Location/Qualifiers
FT modified_site 3 /note= "Asp in the native sequence is replaced by Ala"
FT disulfide_bond 11..36
FT disulfide_bond 12..52
PN W09513295-A1.
PD 18-MAY-1995.
PE 07-NOV-1994; U12874.
PR 12-NOV-1993; US-152301.
PA (DAND) DANA FARBER CANCER INST INC.
PI Rollins B, Zhang YJ;
PI WPI: 95-215051/28.
DR Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
PT capable of inhibiting the monocyte chemo-attractant activity of
PT endogenous MCP-1 and can be used to treat restenosis
PS Claim 6; Page 11; 22pp: English.
CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
CC that they inhibit the monocyte chemoattractant activity of endogenous
CC MCP-1, provided that the derivative has not been modified by the
CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
CC are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg
CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
CC acids 2-8. The present sequence is a specifically claimed human MCP-1
CC derivative based on the parent protein disclosed in Rollins, Molecular
CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC The peptides can be used to prevent restenosis, e.g. in patients
CC undergoing coronary artery angioplasty.
SQ Sequence 76 AA:
Query Match 100.0%; Score 97; DB 14; Length 76;
Best Local Similarity 100.0%; Pred. No. 4.79e-03;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Db 50 eicadpdkxkwq 61
|||
1 EICADPKOKWQ 12
RESULT 14
ID R87676 standard; protein; 76 AA.
AC R87676;
DT 21-FEB-1996 (first entry)
DE (24-Arg) MCP-1.
KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
KW angioplasty.
OS Homo sapiens.

Key Location/Qualifiers
FH modified_site 24 /note= "Arg in the native sequence is replaced by Phe"
FT disulfide_bond 11..36
FT disulfide_bond 12..52
PN MO9513295-A1.
PD 18-MAY-1995.
PF 07-NOV-1994; U12874.
PR 12-NOV-1993; US-152301.
PA (DAND) DANA FARBER CANCER INST INC.
PI Rollins B, Zhang YJ;
DR WPI: 95-215051/28.
PT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
PT capable of inhibiting the monocyte chemo attractant activity of
PS endogenous MCP-1 and can be used to treat restenosis
PS Claim 5; Page 11; 22pp; English.
CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
CC that they inhibit the monocyte chemoattractant activity of endogenous
CC MCP-1, provided that the derivative has not been modified by the
CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
CC are: (1) substitution of 28-Tyr by aspartate; (2) substitution of 24 Arg
CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
CC acids 2-8. The present sequence is a specifically claimed human MCP-1
CC derivative based on the parent protein disclosed in Rollins, Molecular
CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC The peptides can be used to prevent restenosis, e.g. in patients
CC undergoing coronary artery angioplasty.
SQ Sequence 76 AA;
Query Match 100.0%; Score 97; DB 14; Length 76;
Best Local Similarity 100.0%; Pred. No. 4.79e-03;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Db 50 elcadpkrqkvq 61
|||||
1 EICADPKRKWVQ 12
QY
RESULT 15
ID R86859 standard; Protein; 77 AA.
AC R86859;
DT 20-MAR-1996 (first entry)
DE Mature MCP-1.
KM Antisense: monocyte chemotactic protein-1; MCP-1;
KM "C-C" family; chemotactic cytokine; chemokine; stimulation;
KW monocyte; chemotaxis; vascular smooth muscle cell; macrophage;
KW proliferation; restenosis; Balloon angioplasty.
OS Homo sapiens.
PN MO9519167-A1.
PD 20-JUL-1995.
PF 13-JAN-1995; U00605.
PR 14-JAN-1994; US-182917.
PA (MLCW) MALLINCKRODT MEDICAL INC.
PI Lyle LR, Thomas-Miller B;
DR WPI: 95-263703/34.
DR N-PSDB: T03528.
PT New anti-sense oligo:nucleotide(s) and peptide(s) for inhibiting
PT restenosis - are directed against C-C family cytokine(s) such as
PT monocyte chemotactic protein, opt. radio:labelled for therapy or
PT imaging
PS Disclosure: Page 5; 50pp; English.
CC This sequence represents the mature form of monocyte chemotactic
CC protein-1 (MCP-1). MCP-1 is a member of the "C-C" family of
CC chemotactic cytokines or chemokines. It is a potent stimulator
CC of monocyte chemotaxis and has an extremely high degree of specificity
CC for this cell type. MCP-1 is produced by injured vascular smooth muscle
CC cells and attracts the monocytes and macrophages which infiltrate the
CC area, releasing growth factors and resulting in proliferation of vascular
CC smooth muscle and restenosis. Nucleic acid molecules which are antisense
CC to the MCP-1 mRNA may be used to inhibit translation of MCP-1 and so may
CC be useful for inhibiting vascular restenosis, partic. following Balloon
CC angioplasty or a related process. The molecule may be radiolabelled to
CC increase its therapeutic effect or for imaging areas of potential

CC restenosis.
SQ Sequence 77 AA;
Query Match 100.0%; Score 97; DB 15; Length 77;
Best Local Similarity 100.0%; Pred. No. 4.79e-03;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Db 51 elcadpkrqkvq 62
|||||
1 EICADPKRKWVQ 12
QY
RESULT 16
ID R28653 standard; Protein; 99 AA.
AC R28653;
DT 24-MAR-1993 (first entry)
DE MCF.
KM Plasmid: monocyte chemotactic factor; MCF; translation;
KM termination; terminator; initiation; ribosome binding site;
KW RBS; Promoter; tryptophan; repressor.
OS Synthetic.
FH Key Location/Qualifiers
FT peptide 1..23
FT protein /label= sig_peptide
FT protein /label= mat_protein
PN MO9219737-A.
PD 12-NOV-1992.
PF 27-APR-1992; J00550.
PR 09-MAY-1991; JP-135950.
PA (DAIN) DAINIPPON PHARM CO LTD.
PI Fukui T, Matsuo N, Yamada M, Yamagishi J;
DR WPI: 92-398864/48.
DR N-PSDB: Q30748.
PT Prod. of polypeptide(s) having monocyte chemotactic activity -
PT using expression plasmids with E. coli elements and specific
PT E.coli strains
PS Disclosure: Page 43-44; 56pp; English.
CC An expression plasmid, pMCO76 for producing MCF(76) consisting
CC of 76 amino acids was constructed. DNA encoding MCF(76) was
CC prep. using a recombinant plasmid pMCF7.
SQ Sequence 99 AA;
Query Match 100.0%; Score 97; DB 5; Length 99;
Best Local Similarity 100.0%; Pred. No. 4.79e-03;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Db 73 elcadpkrqkvq 84
|||||
1 EICADPKRKWVQ 12
QY
RESULT 17
ID P95387 standard; Protein; 99 AA.
AC P95387;
DT 25-JUL-1989 (first entry)
DE Human monocyte chemo-attractant peptide-1.
KW Human monocyte chemo-attractant peptide; inflammatory disease; neoplasms.
OS Homo sapiens.
FH Key Location/Qualifiers
FT protein 24..99
FT protein /product=MCP-1
PN US7330446-A.
PD 25-JUL-1989;
PF 30-MAR-1989; 330446.
PR 30-MAR-1989; US-330446.
PA (USSH) US Dept. Health and Human.
PI Yoshimura T, Robinson EA, Appella E, Leonard EJ;
DR WPI: 89-300683/41.
DR N-PSDB: N91337.
PT Human derived monocyte chemo-attractant peptide prods. - obtd. from human
PT glioma cell line U-109MG or peripheral blood mononuclear leukocytes.
PS Disclosure: fig 2; 66pp; English.

CC This is a human-derived monocyte chemo-attractant peptide (MCP-1) sequence
 CC MCP-1 exhibits optimal chemotactic activity at a concn. of 1nM and has a
 CC mol. mass of c.a. 8,400 D. MCP-1 can be used for treating infection eg
 CC inflammatory disease, or for the control of neoplasms by accumulation of
 CC monocytes at the site of the infection. The corresp. DNA is obt'd. by
 CC chemical synthesis, by screening reverse transcripts of mRNA from
 CC purified blood leukocytes or cell cultures of eg U-373 MG or KMG-5.
 SQ Sequence 99 AA;

Query Match 100.0%; Score 97; DB 2; Length 99;
 Best Local Similarity 100.0%; Pred. No. 4.79e-03;
 Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Db 73 elcaddpkqkvwg 84
 |||||
 Qy 1 EICADPKQKQWQ 12

RESULT 18
 ID R70800 standard; Protein; 99 AA.
 AC R70800;
 DT 29-AUG-1995 (first entry)
 DE Chemoattractant protein MCP-1.
 KW MCP-1: chemoattractant; heparanase; heparin; heparan sulfate;
 KW arthritis; restenosis; cancer; wound healing.
 OS Homo sapiens.
 PN W09504158-A.
 PD 09-FEB-1995.
 PE 26-JUL-1994; U08207.
 PR 29-JUL-1993; US-099866.
 PR 13-OCT-1993; US-136117.
 PA (UPJO) UPJOHN CO.
 PI Hoogwerf AJ, Ledbetter SR;
 DR WPI; 95-082239/11.
 DR N-PSDB; Q85370.
 PT Screening for cpds. with anti-heparanase activity - by detecting
 PT inhibition of heparin or heparan sulphate degradation,
 PT potentially useful for treating arthritis, restenosis, cancer.
 PS Claim 13; Page 49; 60pp; English.
 CC Purified heparanases, prepared under reducing conditions and
 CC activated with transglutaminase, are given in R70786-804. Most
 CC are prepared with transglutaminase, are given in R70786-804. Most
 CC leukocytes, then cloning of the cDNA into pVL1392 baculovirus
 CC vector, and expression in Sf9 cells in the presence of reduced
 CC glutathione and dithiothreitol.
 SQ Sequence 99 AA;

Query Match 100.0%; Score 97; DB 13; Length 99;
 Best Local Similarity 100.0%; Pred. No. 4.79e-03;
 Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Db 73 elcaddpkqkvwg 84
 |||||
 Qy 1 EICADPKQKQWQ 12

RESULT 19
 ID R73914 standard; Protein; 99 AA.
 AC R73914;
 DT 05-DEC-1995 (first entry)
 DE Human monocyte chemoattractant factor hMCP-1.
 KW Human monocyte chemoattractant factor; hMCP-1; chemokine; vaccine;
 KW meningitis related homologous antigenic sequence; MRHS; RV-1;
 KW immunosassay; diagnosis; treatment; prophylactic; bacterial;
 KW viral.
 OS Homo sapiens.
 PN W09509232-A.
 PD 06-APR-1995.
 PE 28-SEP-1994; CA0516.
 PR 28-SEP-1993; US-127499.
 PR (SHAR/) SHARMA L R.
 PA (VALS/) VAN ALSTYNE D.
 PI Sharma LR, Van Alstyne D;

DR WPI. 95-147431/19.
 PT New peptide(s) and corresp. antibodies for the treatment of
 PT meningitis - the peptide(s) corresp. to homologous antigenic for
 PT sites on bacterial and viral agents and on chemokine(s), used for
 PT detecting and preventing meningitis
 PS Claim 47; Fig 8/10; 98pp; English.
 CC R73914 is the chemokine human monocyte chemoattractant factor hMCP-1.
 CC It contains the meningitis related antigenic sequences (MRHS) claimed
 CC in R73895 and R73907, which are recognised by a monoclonal antibody
 CC from the hybridoma Rubella virus (RV)-1. The claimed MRHS peptides
 CC may be used in immunoassays to diagnose the presence of bacterial
 CC and/or viral meningitis agents in a sample, or in prophylactic and
 CC therapeutic meningitis treatments. The peptides may also be used as
 CC vaccines against meningitis.
 CC NB: Identified by matching corresponding MRHS peptides.
 SQ Sequence 99 AA;

Query Match 100.0%; Score 97; DB 14; Length 99;
 Best Local Similarity 100.0%; Pred. No. 4.79e-03;
 Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Db 73 elcaddpkqkvwg 84
 |||||
 Qy 1 EICADPKQKQWQ 12

RESULT 20
 ID W22675 standard; Protein; 71 AA.
 AC W22675;
 DT 19-MAR-1998 (first entry)
 DE Drol3+ chemokine beta10 or monocyte chemotactic protein 4 variant.
 KW Human; chemokine beta10; CK beta10; treatment; antagonist;
 KW solid tumour; infection; autoimmune disease; asthma; antibody;
 KW fibrotic disease; psoriasis; neurodegenerative disease;
 KW wound healing; haematopoiesis regulation; gene therapy;
 KW chromosome identification; monocyte chemotactic protein 4;
 KW Leukemia; MCP-4; Drol3+ variant.
 OS Homo sapiens.
 PN W09731098-A1.
 PD 28-AUG-1997.
 PE 23-FEB-1996; U02598.
 PR 23-FEB-1996; WO-U02598.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
 PI Parmelee D, White J;
 DR WPI; 97-435153/40.
 PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 PT protein 4 - useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis
 PS Example 11; Fig 5; 83pp; English.
 CC The present sequence is human chemokine beta10 (CK beta10) or
 CC monocyte chemotactic protein 4 (MCP-4) Drol3+ variant, which can
 CC be used to treat patients deficient in CK beta10, while a CK beta10
 CC antagonist can be used to reduce excessive levels of CK beta10. CK
 CC beta10 can be used to treat leukaemia, solid tumours, chronic or
 CC opportunistic infections, autoimmune diseases, asthma, fibrotic
 CC diseases, psoriasis and neurodegenerative diseases. It also
 CC promotes wound healing, regulates haematopoiesis and generates
 CC antibodies. Labelled CK beta10 can be used to identify its cognate
 CC receptor, while cells expressing the receptor can be used to screen
 CC compounds for (ant)agonist activity. The antagonist can be used to
 CC treat Rheumatoid arthritis, autoimmune, chronic inflammatory or
 CC infectious diseases, allergies, prosta glandin dependent fever and
 CC bone marrow failure, sarcoidosis, hyper-eosinophilic
 CC syndrome, lung inflammation and atherosclerosis. CK beta10 cDNA can
 CC be used to isolate genes encoding similar peptides, in gene therapy
 CC and for chromosome identification.
 SQ Sequence 71 AA;

Query Match 95.9%; Score 93; DB 27; Length 71;
 Best Local Similarity 91.7%; Pred. No. 1.28e-02;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 45 eicadpkekwyg 56
 |||||:||||
 QY 1 EICADPKOKWQ 12

RESULT 21

ID W22672 standard; Protein; 75 AA.

AC W22673;
 DT 19-MAR-1998 (first entry)
 DE Bac 3 chemokine beta10 or monocyte chemotactic protein 4 variant.
 KW Human; chemokine beta10; Ck beta10; treatment; antagonist;
 KW solid tumour; infection; autoimmune disease; asthma; antibody;
 KW fibrotic disease; psoriasis; neurodegenerative disease;
 KW wound healing; haematopoiesis regulation; gene therapy;
 KW chromosome identification; monocyte chemotactic protein 4;
 KW leukaemia; MCP-4; Bac 3 variant.
 OS Homo sapiens.
 PN WO9731098-A1.
 PD 28-AUG-1997.
 PF 23-FEB-1996; WO02598.
 PR 23-FEB-1996; WO-002598.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
 PI Parmelee D, White J;
 PI WPI: 97-435153/40.
 DR Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 PT protein 4 - useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis
 PS Example 11; Fig 5; 83pp; English.
 CC The present sequence is human chemokine beta10 (Ck beta10) or
 CC monocyte chemotactic protein 4 (MCP-4) Bac 3 variant, which can be
 CC used to treat patients deficient in Ck beta10, while a Ck beta10
 CC antagonist can be used to reduce excessive levels of Ck beta10. Ck
 CC beta10 can be used to treat leukaemia, solid tumours, chronic or
 CC opportunistic infections, autoimmune diseases, asthma, fibrotic
 CC diseases, psoriasis and neurodegenerative diseases. It also
 CC promotes wound healing, regulates haematopoiesis and generates
 CC antibodies. Labelled Ck beta10 can be used to identify its cognate
 CC receptor, while cells expressing the receptor can be used to screen
 CC compounds for (ant)agonist activity. The antagonist can be used to
 CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
 CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
 CC syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can
 CC be used to isolate genes encoding similar peptides, in gene therapy
 CC and for chromosome identification.
 SQ Sequence 75 AA;

Query Match 95.9%; Score 93; DB 27; Length 75;

Best Local Similarity 91.7%; Pred. No. 1,28e-02;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 49 eicadpkekwyg 60
 |||||:||||
 QY 1 EICADPKOKWQ 12

RESULT 22

ID W22672 standard; Protein; 77 AA.

AC W22672;
 DT 19-MAR-1998 (first entry)
 DE Bac 2 chemokine beta10 or monocyte chemotactic protein 4 variant.
 KW Human; chemokine beta10; Ck beta10; treatment; antagonist;
 KW solid tumour; infection; autoimmune disease; asthma; antibody;
 KW fibrotic disease; psoriasis; neurodegenerative disease;
 KW wound healing; haematopoiesis regulation; gene therapy;
 KW chromosome identification; monocyte chemotactic protein 4;
 KW leukaemia; MCP-4; Bac 2 variant.
 OS Homo sapiens.
 PN WO9731098-A1.
 PD 28-AUG-1997.
 PF 23-FEB-1996; WO02598.
 PR 23-FEB-1996; WO-002598.

PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
 PI Parmelee D, White J;
 PI WPI: 97-435153/40.
 DR Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 PT protein 4 - useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis
 PS Example 11; Fig 5; 83pp; English.

CC The present sequence is human chemokine beta10 (Ck beta10) or
 CC monocyte chemotactic protein 4 (MCP-4) Bac 2 variant, which can be
 CC used to treat patients deficient in Ck beta10, while a Ck beta10
 CC antagonist can be used to reduce excessive levels of Ck beta10. Ck
 CC beta10 can be used to treat leukaemia, solid tumours, chronic or
 CC opportunistic infections, autoimmune diseases, asthma, fibrotic
 CC diseases, psoriasis and neurodegenerative diseases. It also
 CC promotes wound healing, regulates haematopoiesis and generates
 CC antibodies. Labelled Ck beta10 can be used to identify its cognate
 CC receptor, while cells expressing the receptor can be used to screen
 CC compounds for (ant)agonist activity. The antagonist can be used to
 CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
 CC infectious diseases, allergies, prostaglandin dependent fever and
 CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
 CC syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can
 CC be used to isolate genes encoding similar peptides, in gene therapy
 CC and for chromosome identification.
 SQ Sequence 77 AA;

Query Match 95.9%; Score 93; DB 27; Length 77;

Best Local Similarity 91.7%; Pred. No. 1,28e-02;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 51 eicadpkekwyg 62
 |||||:||||
 QY 1 EICADPKOKWQ 12

RESULT 23

ID W22674 standard; Protein; 79 AA.

AC W22674;
 DT 19-MAR-1998 (first entry)
 DE Droll/2 chemokine beta10 or monocyte chemotactic protein 4 variant.
 KW Human; chemokine beta10; Ck beta10; treatment; antagonist;
 KW solid tumour; infection; autoimmune disease; asthma; antibody;
 KW fibrotic disease; psoriasis; neurodegenerative disease;
 KW wound healing; haematopoiesis regulation; gene therapy;
 KW chromosome identification; monocyte chemotactic protein 4;
 KW leukaemia; MCP-4; Droll/2 variant.
 OS Homo sapiens.
 PN WO9731098-A1.
 PD 28-AUG-1997.
 PF 23-FEB-1996; WO02598.
 PR 23-FEB-1996; WO-002598.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
 PI Parmelee D, White J;
 PI WPI: 97-435153/40.
 DR Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 PT protein 4 - useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis
 PS Example 11; Fig 5; 83pp; English.

CC The present sequence is human chemokine beta10 (Ck beta10) or
 CC monocyte chemotactic protein 4 (MCP-4) Droll/2 variant, which can
 CC be used to treat patients deficient in Ck beta10, while a Ck beta10
 CC antagonist can be used to reduce excessive levels of Ck beta10. Ck
 CC beta10 can be used to treat leukaemia, solid tumours, chronic or
 CC opportunistic infections, autoimmune diseases, asthma, fibrotic
 CC diseases, psoriasis and neurodegenerative diseases. It also
 CC promotes wound healing, regulates haematopoiesis and generates
 CC antibodies. Labelled Ck beta10 can be used to identify its cognate
 CC receptor, while cells expressing the receptor can be used to screen
 CC compounds for (ant)agonist activity. The antagonist can be used to
 CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
 CC infectious diseases, allergies, prostaglandin dependent fever and

CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
 CC syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can
 CC be used to isolate genes encoding similar peptides, in gene therapy
 CC and for chromosome identification.
 SQ Sequence 79 AA;

Query Match 95.9%; Score 93; DB 27; Length 79;
 Best Local Similarity 91.7%; Pred. No. 1.28e-02;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 53 eicadpkexkwg 64
 |||||||:||||
 QY 1 EICADPKOKWQ 12

RESULT 24
 ID W22671 standard; Protein; 82 AA.
 AC W22671;
 DT 19-MAR-1998 (first entry)
 DE Bac 1 chemokine beta10 or monocyte chemotactic protein 4 variant.
 KW Human; chemokine beta10; Ck beta10; treatment; antagonist;
 KW solid tumour; infection; autoimmune disease; asthma; antibody;
 KW fibrotic disease; psoriasis; neurodegenerative disease;
 KW wound healing; haematopoiesis regulation; gene therapy;
 KW chromosome identification; monocyte chemotactic protein 4;
 KW leukaemia; MCP-4; Bac 1 variant.
 OS Homo sapiens.
 PS MO9731098-A1.
 PD 28-AUG-1997.
 PE 23-FEB-1996: U02598.
 PR 23-FEB-1996: MO-U02598.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SR,
 PI Parmelee D, White J;
 DR WPI: 97-435153/40.
 PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 PT protein 4 - useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis
 PS Example 11; Fig 5; 83pp; English.
 CC The present sequence is human chemokine beta10 (Ck beta10) or
 CC monocyte chemotactic protein 4 (MCP-4) Bac 1 variant, which can be
 CC used to treat patients deficient in Ck beta10, while a Ck beta10
 CC antagonist can be used to reduce excessive levels of Ck beta10. Ck
 CC beta10 can be used to treat leukaemia, solid tumours, chronic or
 CC opportunistic infections, autoimmune diseases, asthma, fibrotic
 CC diseases, psoriasis and neurodegenerative diseases. It also
 CC promotes wound healing, regulates haematopoiesis and generates
 CC antibodies. Labeled Ck beta10 can be used to identify its cognate
 CC receptor. While cells expressing the receptor can be used to screen
 CC compounds for (ant)agonist activity. The antagonist can be used to
 CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
 CC infectious diseases, allergies, prostaglandin dependent fever and
 CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
 CC syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can
 CC be used to isolate genes encoding similar peptides, in gene therapy
 CC and for chromosome identification.
 SQ Sequence 82 AA;

Query Match 95.9%; Score 93; DB 27; Length 82;
 Best Local Similarity 91.7%; Pred. No. 1.28e-02;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 56 eicadpkexkwg 67
 |||||||:||||
 QY 1 EICADPKOKWQ 12

RESULT 25
 ID W17665 standard; peptide; 82 AA.
 AC W17665;
 DT 16-DEC-1997 (first entry)
 DE Stem cell mobilising chemokine Ckbeta-10.
 KW Haematopoietic cell; parasitic infection; colony stimulating factor;

KW haematoregulator; immune response; bacterial infection; transplant;
 KW wound healing; bone marrow; immunosuppression; regeneration;
 KW neoplastic disease; viral disease; gene therapy; cytotoxic drug.
 OS Synthetic.
 PN MO9715594-A1.
 PD 01-MAY-1997.
 PE 23-OCT-1996; U16959.
 PR 24-OCT-1995; US-006051.
 PA (SMIK) SMITHKLINE BEECHAM CORP.
 PI Kreider BL, Li H, Pelus L, White JR;
 DR WPI: 97-258956/23.
 PT Ten new chemokine(s) able to mobilise stem cells - used where
 PT increased levels of haematopoietic cells are required, e.g. to
 PT increase resistance to infection
 PS Claim 7; Page 11-12; 24pp; English.
 CC The present sequence represents a chemokine, Ckbeta-10, which is capable
 CC of mobilising stem cells. The chemokine can be used therapeutically to
 CC improve stem cell mobilisation, optionally together with a colony
 CC stimulating factor or other haematoregulatory agent. It can be used
 CC to increase the immune response to chronic infection (particularly
 CC bacterial or parasitic), to promote wound healing, in (transplant)
 CC patients with reduced bone marrow function as a result of
 CC immunosuppressive treatment or disease, and to provide more rapid
 CC regeneration of bone marrow after treatment for neoplastic or viral
 CC diseases. The induced stem cells may be harvested for subsequent return
 CC to the patient, optionally after they have been genetically manipulated
 CC to deliver a selected gene product (gene therapy). The cells may be
 CC co-administered with a cytotoxic drug.
 SQ Sequence 82 AA;

Query Match 95.9%; Score 93; DB 24; Length 82;
 Best Local Similarity 91.7%; Pred. No. 1.28e-02;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 56 eicadpkexkwg 67
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 QY 1 EICADPKOKWQ 12

RESULT 26
 ID R93087 standard; Protein; 98 AA.
 AC R93087;
 DT 27-AUG-1996 (first entry)
 DE Human chemokine beta-10.
 KW Chemokine beta-10; chemokine beta-4; Ck beta-10; Ck beta-4;
 KW cytokine; leukaemia; tumour; cancer; autoimmune disease; psoriasis;
 KW asthma; allergy; wound healing; diagnosis; therapy.
 OS Homo sapiens.
 FH Key
 FT peptide
 FT Location/Qualifiers
 FT 1..23
 FT /label= Sig_peptide
 FT 25..98
 FT /label= Mat_protein
 PN W09605856-A1.
 PD 29-FEB-1996.
 PE 23-AUG-1994; U09484.
 PR 23-AUG-1994; MO-U09484.
 PR 08-SEP-1994; ZA-006936.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams MD, Li H;
 DR WPI: 96-151145/15.
 DR N-PSDB: T17050.
 PT New chemokine Ck(beta)-4 and -10 genes and polypeptide(s) - useful
 PT to treat, e.g. leukaemia, solid tumours and auto-immune diseases
 PS Claim 19; Fig 2; 53pp; English.
 CC A novel human chemokine, Ck beta-10 (R93087), was identified as
 CC the product of a cDNA clone (T17050) isolated from a 9-wk early
 CC human tissue cDNA library. The protein is structurally related to
 CC the chemokine family. Recombinant Ck beta-10 can be obtd. by
 CC incorporating the cDNA into a vector and expression of the protein
 CC in e.g. E. coli, COS or Sf9 cells. Ck beta-10 can be used to treat
 CC solid tumours, chronic infections, psoriasis, asthma and allergy,

CC to regulate haematopoiesis, promote wound healing, and to inhibit
 CC angiogenesis. It can also be used to inhibit bone marrow stem cell
 CC colony form. during chemotherapy.
 CC Sequence 98 AA;

Query Match 95.9%; Score 93; DB 17; Length 98;
 Best Local Similarity 91.7%; Pred. No. 1.28e-02;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 72 eicadpkexkwyg 83
 |||||:||||
 QY 1 EICADPKOKWVQ 12

RESULT 27
 ID W30191 standard; Protein; 98 AA.
 AC W30191;
 DT 21-MAY-1998 (first entry)
 DE Monocyte chemotactic protein 5.
 KW Monocyte chemotactic protein 5; MCP-5; human; macrophage;
 KW chemokine; inhibitor; antiinflammatory; atherosclerosis;
 KW Crohn's disease; arthritis; angiogenesis; tumour; metastasis;
 KW therapy; diagnosis; medical imaging.
 OS Homo sapiens.
 FH Key Location/Qualifiers
 FT Peptide 1..23
 FT /label= sig_peptide
 FT Protein 24..98
 FT /label= Mat_protein
 FT /note= "Claim 4"

PN MO9735982-A2.
 PD 02-OCT-1997.
 PF 26-MAR-1997; U04898.
 PR 27-MAR-1996; US-622851.
 PA (ICOS-) ICOS CORP.
 PI Godiska R, Gray PM;
 DR WPI: 97-489645/45.
 DR N-PSDB: T90880.
 PT Polynucleotide encoding monocyte chemotactic protein-5 - useful in
 PT treatment of e.g. inflammation, atherosclerosis, angiogenesis and
 PT tumours
 PS Claim 1; Page 36-37; 47pp; English.
 CC This polypeptide comprises human macrophage-derived
 CC monocyte chemotactic protein-5 (MCP-5) a novel C-C chemokine.
 CC Its amino acid sequence was deduced from a cDNA clone (see
 CC T90880 and T90883). Isolated from a human macrophage cDNA
 CC library. A claimed method for producing MCP-5 comprises
 CC culturing a host cell that is stably transformed or transfected
 CC with MCP-5 polynucleotide. Also claimed is a hybridoma that
 CC produces a monoclonal antibody (MAB) that is specifically
 CC reactive with the mature MCP-5. MCP-5 (or its analogues and
 CC fragments) is used to enhance the immune response in cases of
 CC wounds or infections, while its inhibitors (e.g. the MAB) are
 CC useful as anti-inflammatory in cases of e.g. arthritis and
 CC Crohn's disease, also for treatment of atherosclerosis,
 CC angiogenesis and tumour growth (or metastasis). The MCP-5
 CC inhibitors can possibly also be used to reduce the damaging effects
 CC of chemo- and radio-therapy on myeloid progenitor cells, and to
 CC inhibit replication of HIV. MCP-5 can also be used to identify
 CC its cognate receptor, while MCP-5 peptides (or the analogues or
 CC receptors) are used to modulate MCP-5 activity and to identify
 CC MCP-5 agonists and antagonists.
 SQ Sequence 98 AA;

Query Match 95.9%; Score 93; DB 28; Length 98;
 Best Local Similarity 91.7%; Pred. No. 1.28e-02;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 72 eicadpkexkwyg 83
 |||||:||||
 QY 1 EICADPKOKWVQ 12

RESULT 28
 ID W22670 standard; Protein; 98 AA.
 AC W22670;
 DT 19-MAR-1998 (first entry)

DE Human chemokine beta10 or monocyte chemotactic protein 4.
 KW Human chemokine beta10; Ck beta10; treatment; antagonist;
 KW solid tumour; infection; autoimmune disease; asthma; antibody;
 KW fibrotic disease; psoriasis; neurodegenerative disease;
 KW wound healing; haematopoiesis regulation; gene therapy;
 KW chromosome identification; monocyte chemotactic protein 4;
 KW leukaemia; MCP-4.
 OS Homo sapiens.

FH Key Location/Qualifiers
 FT Peptide 1..23
 FT /label= sig_peptide
 FT Protein 24..98
 FT /label= mat_peptide

PN WO9731098-A1.
 PD 28-AUG-1997.
 PF 23-FEB-1996; U02598.
 PR 23-FEB-1996; WO-U02598.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
 PI Parmelee D, White J;
 DR WPI: 97-435153/40.
 DR N-PSDB: T85029.
 PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 PT protein 4 - useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis
 PS Claim 1; Fig 2: 83pp; English.

CC The present sequence is human chemokine beta10 (Ck beta10) or
 CC monocyte chemotactic protein 4 (MCP-4), which can be used to treat
 CC patients deficient in Ck beta10, while a Ck beta10 antagonist can
 CC be used to reduce excessive levels of Ck beta10. Ck beta10 can be
 CC used to treat leukaemia, solid tumours, chronic or opportunistic
 CC infections, autoimmune diseases, asthma, fibrotic diseases,
 CC psoriasis and neurodegenerative diseases. It also promotes wound
 CC healing, regulates haematopoiesis and generates antibodies.
 CC Labelled Ck beta10 can be used to identify its cognate receptor,
 CC while cells expressing the receptor can be used to screen compounds
 CC for (antagonist activity. The antagonist can be used to treat
 CC rheumatoid arthritis, autoimmune, chronic inflammatory or
 CC infectious diseases, allergies, prostaglandin dependent fever and
 CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
 CC syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can
 CC be used to isolate genes encoding similar peptides, in gene therapy
 CC and for chromosome identification.
 SQ Sequence 98 AA;

Query Match 95.9%; Score 93; DB 27; Length 98;
 Best Local Similarity 91.7%; Pred. No. 1.28e-02;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 72 eicadpkexkwyg 83
 |||||:||||
 QY 1 EICADPKOKWVQ 12

RESULT 29

ID R06398 standard; protein; 99 AA.
 AC R06398;
 DT 14-DEC-1990 (first entry)
 DE Human MCP precursor.
 KW Monocyte chemotactic factor; antibacterial; antitumour; cancer.
 OS Homo sapiens.

FH Key Location/Qualifiers
 FT Protein 24..99
 FT /label= mature MCF
 FT /note= "Claim 1"
 FT misc_difference 76
 FT /label= A or T
 PN WO9007863-A.
 PD 26-JUL-1990.

PF 02-JAN-1990; U00004.
 PR 01-JAN-1989; JP-000065.
 PR 03-FEB-1989; JP-026438.
 PA (USDC) US SEC OF COMMERCE.
 PI Furutani Y, Fukui T, Junichi Y, Masaaki Y, Matsushima K;
 PI Oppenheim J;
 DR WPI: 90-253802/33.
 DR P-PSDB: R06398.
 PI Human monocyte chemotactic factor type polypeptide and DNA
 PI encoding it - useful as antibacterial and antitumour agents.
 PS Claim 2; Page 25; 27pp; English.
 CC The sequence was deduced from the DNA sequence determined from
 CC three recombinant plasmids, pHMC7, pHMC25 and pHMC29 which
 CC were isolated from a cDNA library prepd. from RNA extracted from
 CC human promyelocytic leukaemia cell line, HL-60 (ATCC CCL-240).
 CC vectors. In plasmids pHMC7 and pHMC29 bases 105 and 226 were
 CC T and G resp; in pHMC25 they were C and A resp. The AA at posn.
 CC 76 of the precursor protein is therefore not determined and may be
 CC either Ala or Thr. The protein may be produced by recombinant of
 CC DNA techniques in E.coli, and is useful as a drug for treatment of
 CC certain bacterial infections and cancers.
 SQ Sequence 99 AA;

Query Match 95.9%; Score 93; DB 2; Length 99;
 Best Local Similarity 91.7%; Pred. No. 1.28e-02;
 Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

DB 73 elcxdkqkqkwyg 84
 ||| |||||
 QY 1 EICADPKQKQWQ 12

RESULT 30
 ID R26580 standard; Protein; 76 AA.
 AC R26580;
 DT 28-JAN-1993 (first entry)
 DE Sequence of bovine P6 protein.
 KW Monocyte chemoattractant; bovine P6-derivative; thrombosis; tumour;
 KM inflammation therapy.
 OS Bos taurus.
 PN DE4125251-C.
 PD 03-SEP-1992.
 PF 31-JUL-1991; DE-125251.
 PR 31-JUL-1991; DE-125251.
 PA (SCHA-) SCHAPER & BROEMER GMBH & CO KG.
 PI Gramm W, Lins E;
 DR WPI: 92-293438/36.
 PI Drug containing a bovine protein homologous to human MCP-1 - for
 PI treating inflammation, tumours, thrombosis, and immune reactions,
 PI also for diagnosis
 PS Claim 1; Page 3; 6pp; German.
 CC Poly(A+)-RNA from bull seminal vesicles was used to prepare a cDNA in
 CC the expression vector lambda g11. 1.5 x 10(5) cDNA clones were
 CC screened with a polyclonal anti-P6 antiserum of monospecific
 CC immunoglobulin G and six positives were identified. The insert of a
 CC suitable cDNA clone, pH42, was cloned into pUC18 and sequenced.
 CC pH42 encodes the 11,114 Da precursor of P6. It is called Monocyte
 CC Chemoattractant (bmCP-1), which is a homologue of human (h)MCP-1.
 CC There is 72% overall AA sequence homology to hMCP-1 with the signal
 CC peptide showing 100% and the central region showing 89% homology.
 SQ Sequence 76 AA;

Query Match 94.8%; Score 92; DB 5; Length 76;
 Best Local Similarity 91.7%; Pred. No. 1.63e-02;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

DB 50 elcxdkqkqkwyg 61
 ||:|||||||
 QY 1 EICADPKQKQWQ 12

Search completed: Thu Apr 1 07:25:32 1999
 Job time : 38 secs.

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 W P E R L I
 (TM)

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Mpsrch_pp protein - protein database search, using Smith-Waterman algorithm
 Run on: Thu Apr 1 07:24:12 1999; MasPar time 3.33 Seconds
 Tabular output not generated. 134.969 Million cell updates/sec

Title: >US-08-927-939-1
 Description: (1-12) from US08927939.pep
 Perfect Score: 97
 Sequence: 1 EICADPKQKRWQ 12

Scoring table:
 PAM 150
 Gap 15

Searched: 116738 segs, 37463448 residues

Post-processing: Minimum Match 0%
 Listing first 100 summaries

Database: p1r58
 1:p1r1 2:p1r2 3:p1r3 4:p1r4

Statistics: Mean 24.661; Variance 36.070; scale 0.684

Pred. No. is the number of results predicted by chance to have a
 score greater than or equal to the score of the result being printed,
 and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description	Pred. No.
1	97	100.0	99	2	A60299	1.33e-08
2	96	99.0	99	2	JC2136	2.24e-07
3	92	94.8	99	2	A39296	1.78e-07
4	92	94.8	99	2	JC3336	1.78e-07
5	91	93.8	125	2	I46857	2.97e-07
6	90	92.8	109	2	A54678	4.96e-07
7	88	90.7	99	2	JC2417	1.37e-06
8	88	90.7	120	2	I46147	1.37e-06
9	86	88.7	97	2	JC4912	3.77e-06
10	84	86.6	95	2	JN0841	1.03e-05
11	84	86.6	96	2	JC3478	1.03e-05
12	84	86.6	96	2	I46099	1.03e-05
13	84	86.6	101	2	I46997	1.03e-05
14	84	86.6	101	2	A54966	1.03e-05
15	84	86.6	103	2	A53096	1.03e-05
16	84	86.6	103	2	A44253	1.03e-05
17	83	85.6	92	2	I53322	1.68e-05
18	82	84.5	99	2	JC5295	2.78e-05
19	81	83.5	101	2	I46871	4.55e-05
20	80	82.5	148	2	A30209	7.44e-05
21	76	78.4	92	2	A33393	5.18e-04
22	75	77.3	148	2	S07723	5.18e-04
23	75	77.3	89	2	A53497	8.37e-04

24	75	77.3	89	2	I53416	interleukin-8 homolog
25	75	77.3	93	2	G01540	cytokine SDF-1-beta
26	75	77.3	93	2	I81182	cytokine - mouse
27	75	77.3	99	2	A37034	interleukin-8 precursor
28	75	77.3	101	2	I48148	Neutrophil attractant
29	74	76.3	91	1	A46539	monocyte chemoattract
30	72	74.2	50	2	C60407	monocyte adherence-in
31	72	74.2	92	2	A31567	macrophage inflammato
32	72	74.2	93	2	A30574	macrophage inflammato
33	72	74.2	93	2	B35673	LD78-beta protein pre
34	70	72.2	120	2	JE0177	monocyte and monocy
35	69	71.1	92	2	I46730	immune activation gen
36	68	70.1	91	1	A28815	monocyte chemoattract
37	68	70.1	97	2	A48093	monocytic cytokine FI
38	68	70.1	114	1	ETMSL	lymphotactin precursor
39	64	66.0	760	2	S55520	Chitin synthetase I -
40	63	64.9	103	2	I50417	RSV-induced protein -
41	63	64.9	103	2	A26736	transformation-induc
42	62	63.9	92	2	C30552	macrophage inflammato
43	61	62.9	114	1	ETHUL	lymphotactin precursor
44	60	61.9	117	2	S57175	hypothetical protein
45	60	61.9	460	2	E64019	hypothetical protein
46	59	60.8	116	2	I49555	hypothetical protein
47	59	60.8	187	2	C71317	gene C10 protein - mo
48	58	59.8	1053	2	D71466	hypothetical protein
49	57	58.8	192	2	E71437	probable ribonucleosi
50	56	57.7	176	2	G65065	hypothetical protein
51	55	56.7	145	2	S76877	hypothetical protein
52	55	56.7	350	2	S51406	hypothetical protein
53	55	56.7	378	2	A49337	hypothetical protein
54	55	56.7	397	2	S67061	alanine dehydrogenase
55	55	56.7	491	2	S48827	hypothetical protein
56	55	56.7	92	2	S24236	1-aminocyclopropane-1
57	55	56.7	140	1	FWY2M3	TCA3 protein - mouse
58	53	54.6	178	2	F69804	hypothetical protein
59	53	54.6	187	2	D42465	hypothetical protein
60	53	54.6	1422	2	B71437	polarity suppression
61	52	53.6	108	2	G70567	probable resistance g
62	52	53.6	108	2	A60340	N-terminus of IS6110
63	52	53.6	332	2	H69494	hypothetical protein
64	52	53.6	430	2	JC5303	pyruvate formate-lyase
65	52	53.6	379	2	JC5163	hypothetical 41.7K pr
66	52	53.6	828	2	S52393	ultraviolet light res
67	52	53.6	1872	2	JC4976	beta-galactosidase (E
68	52	53.6	26926	1	I38344	plexin 3 - mouse
69	51	52.6	37	1	R5PM81	titin, cardiac musc
70	51	52.6	37	1	S58585	ribosomal protein L36
71	51	52.6	37	2	B70566	probable ribosomal pr
72	51	52.6	188	2	R5R236	ribosomal protein L36
73	51	52.6	188	2	JH0661	amine dehydrogenase (
74	51	52.6	219	2	S68364	pectate lyase (EC 4.2
75	51	52.6	389	2	E71113	probable nonspecific
76	51	52.6	627	2	C69637	DNA gyrase-like prote
77	51	52.6	825	2	S75173	hypothetical protein
78	51	52.6	905	2	A27410	plasma cell membrane
79	51	52.6	1038	2	A71437	probable resistance g
80	51	52.6	85	2	C35387	regulatory protein ko
81	50	51.5	196	2	E64101	invasion protein - Ha
82	50	51.5	211	2	S60328	XP group C protein -
83	50	51.5	239	2	A71552	probable lysophosphol
84	50	51.5	276	2	JH0245	2-hydroxy-6-oxohepta
85	50	51.5	283	2	S10773	probable ATP-binding
86	50	51.5	349	2	D64134	probable membrane pro
87	50	51.5	467	2	S64450	probable membrane pro
88	50	51.5	467	2	S61141	probable membrane pro
89	50	51.5	659	2	S30893	nirc protein - Smech
90	50	51.5	900	2	S70630	xeroderma pigmentosum
91	50	51.5	2179	1	GNNYH4	genome polyprotein -
92	49	50.5	37	2	G71351	probable ribosomal pr
93	49	50.5	273	2	B31479	env polyprotein precu
94	49	50.5	281	1	A47629	cell surface glycopro
95	49	50.5	477	2	F71436	hypothetical protein
96	49	50.5	766	2	G71437	probable resistance g

```

97 49 50.5 861 1 VCLJSC env polyprotein precu 6.54e+01
98 49 50.5 1032 2 A57514 RNA helicase HE117 - 6.54e+01
99 49 50.5 1256 2 C71436 probable resistance g 6.54e+01
100 49 50.5 2467 2 D71437 probable resistance g 6.54e+01

ALIGNMENTS

RESULT 1
ENTRY A60299 #type complete
TITLE monocyte chemoattractant protein 1 precursor - human
ALTERNATE_NAMES GDCP-1; glioma-derived monocyte chemotactic factor 1; MCAF;
MCP-1; monocyte chemotactic factor 1; monocyte secretory
protein; tumor-derived chemotactic factor
CONTAINS glioma-derived chemotactic factor 2 (GDCP-2)
ORGANISM #formal_name Homo sapiens #common_name man
DATE 20-Feb-1993 #sequence_revision 20-Feb-1993 #text_change
20-Mar-1998

ACCESSIONS A35474; A33476; S03339; I51841; A60299; A32300; A32396;
A34561; I57488; JCI096

REFERENCE
#authors A33474
#journal Shyy, Y.J.; Li, Y.S.; Kolattukudy, P.E.
#title Biochem. Biophys. Res. Commun. (1990) 169:346-351
Structure of human monocyte chemotactic protein gene and its
regulation by TPA.
#cross-references MUID:90290466
#accession A33474
#molecule_type DNA
#residues 1-99 #label SHY

REFERENCE
#cross-references GB:M37719; NID:g187447; PID:g487124
A33476
#authors Rollins, B.J.; Stier, P.; Ernst, T.; Wong, G.G.
#journal Mol. Cell. Biol. (1989) 9:4687-4695
#title The human homolog of the JE gene encodes a monocyte secretory
protein.
#cross-references MUID:90097880
#accession A33476
#molecule_type mRNA
#residues 1-99 #label ROT
#cross-references GB:M30816; GB:M31625; GB:M31626; NID:g188701;
PID:g386961

REFERENCE
#cross-references MUID:90211356
A34561
#authors Decock, B.; Conings, R.; Lenaerts, J.P.; Billiau, A.; Van
Damme, J.
#journal Biochem. Biophys. Res. Commun. (1990) 167:904-909
#title Identification of the monocyte chemotactic protein from human
osteosarcoma cells and monocytes: detection of a novel
N-terminally processed form.
#cross-references MUID:90211356
#accession A34561
#molecule_type protein
#residues 29-33,'XX',36-52;82-92 #label DEC

REFERENCE
#cross-references MUID:94150478
I57488
#authors Li, Y.S.; Shyy, Y.J.; Wright, J.G.; Valente, A.J.; Cornhill,
J.F.; Kolattukudy, P.E.
#journal Mol. Cell. Biochem. (1993) 126:61-68
#title The expression of monocyte chemotactic protein (MCP-1) in
human vascular endothelium in vitro and in vivo.
#cross-references MUID:94150478
#accession I57488
#status translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-99 #label LIY

REFERENCE
#cross-references GB:S69738; NID:g545464; PID:g545465
JCI096
#authors Ye, Q.N.; Su, G.F.; Yuan, Y.; Huang, C.F.
#journal Chinese J. Microbiol. Immunol. (1994) 11:29-32
#title The PCR, cloning and sequencing of human monocyte
chemoattractant protein-1 (MCP-1) gene.
#accession JCI096
#molecule_type mRNA
#residues 24-28,'Q',30-99 #label YEO

GENETICS
#gene GDB:SCYA2
#cross-references GDB:125279; OMIM:158105
#map_position 17q11.2-17q12
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS cytokine; glycoprotein; inflammation; pyroglutamic acid
FEATURE
1-23 #domain signal sequence #status predicted #label SIG\
24-99 #product monocyte chemoattractant protein 1 #status
experimental #label MAT\
#product monocyte chemoattractant protein 1, short form
#status experimental #label MAT2\
#modified site pyrrolidone carboxylic acid (Gln) (in
mature form) #status experimental\

```

```

#accession A60299 activating factor (MCP-1/MCAF).
#status not compared with conceptual translation
#molecule_type mRNA
#residues 1-99 #label BOT

REFERENCE
#authors A32300
#journal Fututani, Y.; Nomura, H.; Notake, M.; Oyama, Y.; Fukui, T.;
Yamada, M.; Larsen, C.G.; Oppenheim, J.J.; Matsushima, K.
#title Biochem. Biophys. Res. Commun. (1989) 159:249-255
Cloning and sequencing of the cDNA for human monocyte
chemotactic and activating factor (MCAF).
#cross-references MUID:89165862
#accession A32300
#status not compared with conceptual translation
#molecule_type mRNA
#residues 1-99 #label FOR

REFERENCE
#cross-references GB:M24545; NID:g187434; PID:g307163
A32396
#authors Robinson, E.A.; Yoshimura, T.; Leonard, E.J.; Tanaka, S.;
Griffin, P.R.; Shabanowitz, J.; Hunt, D.F.; Appella, E.
#journal Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1850-1854
#title Complete amino acid sequence of a human monocyte
chemoattractant, a putative mediator of cellular immune
reactions.
#cross-references MUID:89184525
#accession A32396
#molecule_type protein
#residues 'X',25-99 #label ROB

REFERENCE
#cross-references MUID:90211335
A34561
#authors Decock, B.; Conings, R.; Lenaerts, J.P.; Billiau, A.; Van
Damme, J.
#journal Biochem. Biophys. Res. Commun. (1990) 167:904-909
#title Identification of the monocyte chemotactic protein from human
osteosarcoma cells and monocytes: detection of a novel
N-terminally processed form.
#cross-references MUID:90211335
#accession A34561
#molecule_type protein
#residues 29-33,'XX',36-52;82-92 #label DEC

REFERENCE
#cross-references MUID:94150478
I57488
#authors Li, Y.S.; Shyy, Y.J.; Wright, J.G.; Valente, A.J.; Cornhill,
J.F.; Kolattukudy, P.E.
#journal Mol. Cell. Biochem. (1993) 126:61-68
#title The expression of monocyte chemotactic protein (MCP-1) in
human vascular endothelium in vitro and in vivo.
#cross-references MUID:94150478
#accession I57488
#status translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-99 #label LIY

REFERENCE
#cross-references GB:S69738; NID:g545464; PID:g545465
JCI096
#authors Ye, Q.N.; Su, G.F.; Yuan, Y.; Huang, C.F.
#journal Chinese J. Microbiol. Immunol. (1994) 11:29-32
#title The PCR, cloning and sequencing of human monocyte
chemoattractant protein-1 (MCP-1) gene.
#accession JCI096
#molecule_type mRNA
#residues 24-28,'Q',30-99 #label YEO

GENETICS
#gene GDB:SCYA2
#cross-references GDB:125279; OMIM:158105
#map_position 17q11.2-17q12
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS cytokine; glycoprotein; inflammation; pyroglutamic acid
FEATURE
1-23 #domain signal sequence #status predicted #label SIG\
24-99 #product monocyte chemoattractant protein 1 #status
experimental #label MAT\
#product monocyte chemoattractant protein 1, short form
#status experimental #label MAT2\
#modified site pyrrolidone carboxylic acid (Gln) (in
mature form) #status experimental\

```

```
37      #binding_site carbohydrate (Asn) (covalent) #status
SUMMARY      #length 99 #molecular-weight 11025 #checksum 7984
Query Match      100.0%; Score 97; DB 2; Length 99;
Best Local Similarity 100.0%; Pred. No. 1.33e-08;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db      73 EICADPKOKRWQ 84
        |||
        1 EICADPKOKRWQ 12

RESULT      2
ENTRY      JC2136      #type complete
TITLE      monocytic chemoattractant protein-1 precursor - pig
ORGANISM   #formal_name Sus scrofa domestica #common_name domestic pig
DATE       30-Sep-1993 #sequence_revision 20-Aug-1994 #text_change
08-Sep-1997
ACCESSIONS JC2136; S57498
REFERENCE   JC2136
#authors    Hosang, K.; Knoke, I.; Klaudiny, J.; Wempe, F.; Wuttke, W.;
#journal    Biochem. Biophys. Res. Commun. (1994) 199:962-968
#title      Porcine luteal cells express monocytic chemoattractant
            protein-1 (MCP-1): Analysis by polymerase chain reaction
            and cDNA cloning.
#accession  JC2136
#molecule_type mRNA
#residues   1-99 ##label HOS
REFERENCE   S57497
#authors    Zach, O.
#submission Submitted to the EMBL Data Library, July 1994
#accession  S57498
#status      Preliminary
#molecule_type mRNA
#residues    1-99 ##label ZAC
#cross_references EMBL:X79416; NID:9872312; PID:9872313
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS     glycoprotein
FEATURE      1-23
            #domain signal sequence #status predicted #label SIG\
            #product monocytic chemoattractant protein-1 #status
            predicted #label MAT\
            #binding_site carbohydrate (Asn) (covalent) #status
            predicted
SUMMARY      #length 99 #molecular-weight 10976 #checksum 9768
Query Match      99.0%; Score 96; DB 2; Length 99;
Best Local Similarity 91.7%; Pred. No. 2.24e-08;
Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db      73 EICADPKOKRWQ 84
        |||
        1 EICADPKOKRWQ 12

RESULT      3
ENTRY      A39296      #type complete
TITLE      monocytic chemoattractant protein 1 precursor - bovine
ALTERNATE_NAMES #formal_name Bos primigenius taurus #common_name cattle
ORGANISM       03-Aug-1992 #sequence_revision 03-Aug-1992 #text_change
31-Oct-1997
ACCESSIONS A39296; B39296
REFERENCE   A39296
#authors    Wempe, F.; Henschen, A.; Scheit, K.H.
#journal    DNA Cell Biol. (1991) 10:671-679
#title      Gene expression and cDNA cloning identified a major basic
            protein constituent of bovine seminal plasma as bovine
            monocytic-chemoattractant protein-1 (MCP-1).
            #cross_references MUID:92096117
            #accession  A39296
            #status      Preliminary; translated from GB/EMBL/DBJ

37      #molecule_type mRNA
#residues    1-99 ##label WEM
#cross_references GB:M84602; GB:M85264; NID:9163394; PID:9163395
#accession  B39296
#molecule_type protein
#residues    50-68 'X', 70-74, 'X', 76 ##label W82
CLASSIFICATION #experimental_source seminal vesicle
KEYWORDS       #superfamily macrophage inflammatory protein
            glycoprotein
FEATURE      1-23
            #domain signal sequence #status predicted #label SIG\
            #product monocytic chemoattractant protein 1 #status
            predicted #label MAT\
            #binding_site carbohydrate (Asn) (covalent) #status
            predicted
SUMMARY      #length 99 #molecular-weight 11114 #checksum 9401
Query Match      94.8%; Score 92; DB 2; Length 99;
Best Local Similarity 91.7%; Pred. No. 1.78e-07;
Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db      73 EICADPKOKRWQ 84
        |||
        1 EICADPKOKRWQ 12

RESULT      4
ENTRY      JC2336      #type complete
TITLE      monocytic chemoattractant protein-1 - bovine
ORGANISM   #formal_name Bos primigenius indicus #common_name zebu cattle
DATE       20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change
03-May-1996
ACCESSIONS JC2336
REFERENCE   JC2336
#authors    Wempe, F.; Kuhlmann, J.K.; Scheit, K.H.
#journal    Biochem. Biophys. Res. Commun. (1994) 202:1272-1279
#title      Characterization of the bovine monocytic chemoattractant
            protein-1 gene.
#accession  JC2336
#molecule_type protein
#residues    1-99 ##label WEM
GENETICS     #gene MCP-1
#intons      26/1; 65/2
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY      #length 99 #molecular-weight 11114 #checksum 9401
Query Match      94.8%; Score 92; DB 2; Length 99;
Best Local Similarity 91.7%; Pred. No. 1.78e-07;
Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db      73 EICADPKOKRWQ 84
        |||
        1 EICADPKOKRWQ 12

RESULT      5
ENTRY      I46857      #type complete
TITLE      monocytic chemoattractant protein-1 - rabbit
ALTERNATE_NAMES #formal_name Oryctolagus cuniculus #common_name domestic
ORGANISM       14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change
09-May-1997
ACCESSIONS I46857
REFERENCE   I46857
#authors    Yoshimura, T.; Yuhki, N.
#journal    J. Immunol. (1991) 146:3483-3488
#title      Neutrophil attractant/activation protein-1 and monocytic
            chemoattractant protein-1 in rabbit: cDNA cloning and their
            expression in spleen cells.
            #cross_references MUID:91225489
            #accession  I46857
            #status      Preliminary; translated from GB/EMBL/DBJ
```


RESULT 9
ENTRY JC4912 #type complete
TITLE eotaxin - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 01-Nov-1996 #sequence_revision 01-Nov-1996 #text_change
08-Sep-1997
ACCESSIONS JC4912
REFERENCE JC4912
#authors Bartels, J.; Schlueter, C.; Richter, E.; Noso, N.; Kulke, R.;
#journal Christophers, E.; Schroeder, J.M.
#title Biochem. Biophys. Res. Commun. (1996) 225:1045-1051
Human dermal fibroblasts express eotaxin: Molecular cloning,
mRNA expression, and identification of eotaxin sequence
variants.
#accession JC4912
#status Preliminary
#molecule_type mRNA
#residues 1-97 #label BAR
#cross-references EMBL:275668; NID:g1531982; PID:e251275; PID:g1531983
COMMENT ##experimental_source dermal fibroblast
This protein has eosinophil specific chemotactic activity.
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS fibroblast
FEATURE 1-18
19-97 #domain signal sequence #status predicted #label SIG
SUMMARY #product eotaxin #status predicted #label MAT
#length 97 #molecular_weight 10790 #checksum 448
Query Match 88.7%; Score 86; DB 2; Length 97;
Best Local Similarity 75.0%; Pred. No. 3.77e-06;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
Db 71 ICADPKKKKWQ 82
Qy 1 ICADPKKKKWQ 12

RESULT 10
ENTRY JN0841 #type complete
TITLE interleukin-8 - dog
ORGANISM #formal_name Canis lupus familiaris #common_name dog
DATE 19-May-1994 #sequence_revision 19-May-1994 #text_change
12-Apr-1995
ACCESSIONS JN0841
REFERENCE JN0841
#authors Ishikawa, J.; Suzuki, S.; Hotta, K.; Hirota, Y.; Mizuno, S.;
#journal Suzuki, K.
#title Gene (1993) 131:305-306
Cloning of a canine gene homologous to the human
interleukin-8-encoding gene.
#accession JN0841
#molecule_type DNA
#residues 1-95 #label ISH
COMMENT ##residues 1-95 #label ISH
This protein is a polymorphonuclear leukocytes chemotactic factor
and is involved in the host defense function.
GENETICS 22/1: 67/2
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 95 #molecular_weight 10611 #checksum 3157
Query Match 86.6%; Score 84; DB 2; Length 95;
Best Local Similarity 75.0%; Pred. No. 1.03e-05;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
Db 75 EVCLDPKKKWQ 86
Qy 1 EICADPKKKKWQ 12

RESULT 11
ENTRY JC2478 #type complete
TITLE eotaxin - rat
ORGANISM #formal_name Rattus norvegicus #common_name Norway rat

DATE 21-Feb-1995 #sequence_revision 05-Apr-1995 #text_change
08-Sep-1997
ACCESSIONS JC2478
REFERENCE JC2478
#authors Jose, P.J.; Adcock, I.M.; Griffiths-Johnson, D.A.; Berkman,
#journal N.; Wells, T.N.C.; Williams, T.O.; Power, C.A.;
#title Blochem. Biophys. Res. Commun. (1994) 205:788-794
Eotaxin: Cloning of an eosinophil chemottractant cytokine
and increased mRNA expression in allergen-challenged
guinea-pig lungs.
#accession JC2478
#status Preliminary
#molecule_type mRNA
#residues 1-96 #label JOS
#cross-references EMBL:X77603; NID:g602551; PID:g602552
COMMENT ##cross-references EMBL:X77603; NID:g602551; PID:g602552
This protein is identified as a potent eosinophil chemottractant.
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS glycoprotein
FEATURE 1-23
24-96 #domain signal sequence #status predicted #label SIG
93 #product eotaxin #status predicted #label MAT
#binding_site carbohydrate (Thr) (covalent) #status
predicted
SUMMARY #length 96 #molecular_weight 10695 #checksum 7329
Query Match 86.6%; Score 84; DB 2; Length 96;
Best Local Similarity 90.9%; Pred. No. 1.03e-05;
Matches 10; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db 71 ICADPKKKKWQ 81
Qy 2 ICADPKKKKWQ 12

RESULT 12
ENTRY I48099 #type complete
TITLE eotaxin precursor - guinea pig
ORGANISM #formal_name Cavia porcellus #common_name guinea pig
DATE 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
09-May-1997
ACCESSIONS I48099
REFERENCE I48099
#authors Rothenberg, M.E.; Luster, A.D.; Lilly, C.M.; Drazen, J.M.;
#journal Leder, P.
#title J. Exp. Med. (1995) 181:1211-1216
Constitutive and allergen-induced expression of eotaxin mRNA
in the guinea pig lung.
#cross-references MIMD:95173589
#accession I48099
#status Preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-96 #label RES
##residues 1-96 #label RES
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 96 #molecular_weight 10753 #checksum 7236
Query Match 86.6%; Score 84; DB 2; Length 96;
Best Local Similarity 90.9%; Pred. No. 1.03e-05;
Matches 10; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db 71 ICADPKKKKWQ 81
Qy 2 ICADPKKKKWQ 12

RESULT 13
ENTRY I46997 #type complete
TITLE Interleukin-8 - sheep
ORGANISM #formal_name Ovis sp. #common_name sheep
DATE 21-Feb-1997 #sequence_revision 21-Feb-1997 #text_change
09-May-1997
ACCESSIONS I46997
REFERENCE I46997
#authors Secow, H.F.; Yoshimura, T.; Wood, P.R.; Colditz, I.G.

#journal Immunol: Cell Biol. (1994) 72:398-405
#title Cloning, sequencing, expression and inflammatory activity in
#cross-references MOID:95137691
#accession I46997
#status Preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-101 ##label SEO
#cross-references GB:S74436; NID:g786590; PID:g786591
GENETICS
#gene OIL-8
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 101 #molecular-weight 11292 #checksum 294

Query Match 86.6%; Score 84; DB 2; Length 101;
Best Local Similarity 75.0%; Pred. No. 1.03e-05;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 75 EVCLDPKRWQ 86
|:|:|:|:|:|
QY 1 EICADPKRWQ 12

RESULT 14
ENTRY #type complete
TITLE interleukin 8 - sheep
ORGANISM #formal_name Ovis orientalis aries, Ovis ammon aries
#common_name Ovis domestic sheep
DATE 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change
08-Sep-1997

ACCESSIONS S42496
REFERENCE S42496
#authors Legastelois, I.; Greenland, T.; Arnaud, P.; Morner, J.F.;
#submission submitted to the EMBL Data Library, March 1994
#description Nucleotide sequence of ovine interleukin 8 cDNA using
#accession S42496
#status Preliminary
#molecule_type mRNA
#residues 1-101 ##label LEG
#cross-references EMBL:X78306; NID:g463253; PID:g463254
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 101 #molecular-weight 11292 #checksum 294

Query Match 86.6%; Score 84; DB 2; Length 101;
Best Local Similarity 75.0%; Pred. No. 1.03e-05;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 75 EVCLDPKRWQ 86
|:|:|:|:|:|
QY 1 EICADPKRWQ 12

RESULT 15
ENTRY #type complete
TITLE interleukin-8 precursor - pig
ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
DATE 02-Jun-1995 #sequence_revision 02-Jun-1995 #text_change
08-Sep-1997

ACCESSIONS A53096
REFERENCE A53096
#authors Lin, G.; Pearson, A.E.; Scamurra, R.W.; Zhou, Y.; Baarsch,
#journal M.J.; Weiss, D.J.; Murtalugh, M.P.
#title J. Biol. Chem. (1994) 269:77-85
#journal Regulation of interleukin-8 expression in porcine alveolar
#accession A53096
#status Preliminary
#molecule_type mRNA
#residues 1-103 ##label LIN
#cross-references GB:M6923; NID:g164520; PID:g164521
CLASSIFICATION #superfamily beta-thromboglobulin

SUMMARY #length 103 #molecular-weight 11633 #checksum 8835

Query Match 86.6%; Score 84; DB 2; Length 103;
Best Local Similarity 75.0%; Pred. No. 1.03e-05;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 75 EVCLDPKRWQ 86
|:|:|:|:|:|
QY 1 EICADPKRWQ 12

RESULT 16
ENTRY #type complete
TITLE alveolar macrophage chemotactic factor-I (AMCF-I)
ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
DATE 30-Apr-1993 #sequence_revision 18-Nov-1994 #text_change
23-Feb-1996

ACCESSIONS A44253
REFERENCE A44253
#authors Goodman, R.B.; Foster, D.C.; Mathewes, S.L.; Osborn, S.G.;
#journal Kujper, J.L.; Forstrom, J.W.; Martin, T.R.
#title Biochemistry (1992) 31:10483-10490
#cross-references MOID:93041741
#accession A44253
#status Preliminary
#molecule_type mRNA; protein
#residues 1-103 ##label GOO
#experimental_source alveolar macrophage
#note sequence extracted from NCBI backbone (NCBIN:117415,
NCBIP:117416)

CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 103 #molecular-weight 11677 #checksum 8904

Query Match 86.6%; Score 84; DB 2; Length 103;
Best Local Similarity 75.0%; Pred. No. 1.03e-05;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 75 EVCLDPKRWQ 86
|:|:|:|:|:|
QY 1 EICADPKRWQ 12

RESULT 17
ENTRY #type complete
TITLE macrophage inflammatory protein-1alpha - rat
ORGANISM #formal_name Rattus norvegicus #common_name Norway rat
DATE 29-May-1998 #sequence_revision 29-May-1998 #text_change
02-Jul-1998

ACCESSIONS I52322
REFERENCE I52322
#authors Shl, M.M.; Godleski, J.J.; Paulauskis, J.D.
#journal Biochem. Biophys. Res. Commun. (1995) 211:289-295
#title Molecular cloning and posttranscriptional regulation of
#accession I52322
#status Preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-92 ##label RES
#cross-references EMBL:U22414; NID:g790632; PID:g790633
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 92 #molecular-weight 10335 #checksum 3184

Query Match 85.6%; Score 83; DB 2; Length 92;
Best Local Similarity 75.0%; Pred. No. 1.69e-05;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 71 QICADPKRWQ 82


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Oy      1      EICADPKQKRWQ 12      :|||||: |||

RESULT  18
ENTRY   JC5295      #type complete
TITLE   monocytic chemotactic protein-2 - human
ORGANISM Homo sapiens #common_name man
DATE    02-May-1997 #sequence_revision 18-Jul-1997 #text_change
31-Oct-1997
ACCESSIONS
REFERENCE
#authors
#journal
#title
#accession JC5295
#molecule_type mRNA
#residues 1-99 ##label VAN
#cross-references GB:X10802; NID:g1924937; PID:e254088; PID:g1924938
#experimental_source bone marrow
COMMENT  This protein belongs to the beta-chemokine family which is one of
the major HIV-suppressive factors. It plays roles in autoimmune
processes such as multiple sclerosis and rheumatoid arthritis and
in tumor biology, and contribute to the trafficking and
recruitment of the responsive cells.

GENETICS
#gene
CLASSIFICATION mcp-2
#superfamily macrophage inflammatory protein
FEATURE
1-23      #domain signal sequence #status predicted #label SIG\
24-99      #product monocytic chemotactic protein-2 #status
predicted #label MAT
SUMMARY    #length 99 #molecular_weight 11246 #checksum 6556

Db      73      EYCAPKPKRWVR 84
Oy      1      EICADPKQKRWQ 12      :|||||: |||

RESULT  19
ENTRY   I46871      #type complete
TITLE   interleukin-8 - rabbit
ALTERNATE_NAMES neutrophil attractant/activation protein-1
ORGANISM #formal_name Oryctolagus cuniculus #common_name domestic
rabbit
DATE    14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change
09-Aug-1997
ACCESSIONS
REFERENCE
#authors Yoshimura, T.; Yuhki, N.
#journal J. Immunol. (1991) 146:3483-3488
#title Neutrophil attractant/activation protein-1 and monocytic
chemoattractant protein-1 in rabbit: cDNA cloning and their
expression in spleen cells.
#cross-references MUID:91225489
#accession I46871
#status preliminary; translated from GB/EMBL/DBD
#molecule_type mRNA
#residues 1-101 ##label YOS
#cross-references GB:M57439; NID:g165552; PID:g165553
S13052
REFERENCE
#authors Beutheu, B.C.; Collins, P.D.; Jose, P.J.; Totty, N.F.;
Hsuan, J.; Waterfield, M.D.; Williams, T.J.
#journal Blochem. J. (1990) 271:797-801
#title A novel neutrophil chemoattractant generated during an
inflammatory reaction in the rabbit peritoneal cavity in
vivo. Purification, partial amino acid sequence and

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structural relationship to interleukin 8.
#cross-references MUID:91058518
#accession S13052
##molecule_type protein
##residues 23-33,'X',35,'X',37-46,'X',48-49,'I',51-53 ##label BEA
CLASSIFICATION #superfamily beta-thromboglobulin
KEYWORDS cytokine
SUMMARY #length 101 #molecular-weight 11402 #checksum 1085

Query Match 83.5%; Score 81; DB 2; Length 101;
Best Local Similarity 75.0%; Pred. No. 4,55e-05;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 75 EICADPKRKQWQ 86
|:|:|:|:|:|
OY 1 EICADPKRKQWQ 12

RESULT 20
ENTRY #type complete
TITLE PDGF-inducible JE glycoprotein precursor - mouse
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 01-Dec-1989 #sequence_revision 01-Dec-1989 #text_change 01-May-1998
ACCESSIONS A30209; A44771; A30861
REFERENCE A30209
#authors Rollins, B.J.; Morrison, E.D.; Stiles, C.D.
#journal Proc. Natl. Acad. Sci. U.S.A. (1988) 85:3738-3742
#title Cloning and expression of JE, a gene inducible by platelet-derived growth factor and whose product has cytokine-like properties.
#cross-references MUID:88234501
#accession A30209
##molecule_type DNA
##residues 1-148 ##label ROL
#cross-references GB:M19681; NID:G193486; PID:G387168; GB:M19682
REFERENCE A44771
#authors Kawahara, R.S.; Deuel, T.F.
#journal J. Biol. Chem. (1989) 264:679-682
#title Platelet-derived growth factor-inducible gene JE is a member of a family of small inducible genes related to platelet factor 4.
#accession A44771
##molecule_type DNA; mRNA
#residues 1-148 ##label KA2
#cross-references GB:J04467; NID:G193486; PID:G387169
GENETICS
#gene JE
#introns 26/1; 65/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS cytokine; glycoprotein
FEATURE
16 #binding_site carbohydrate (Asn) (covalent) #status predicted
SUMMARY #length 148 #molecular-weight 16326 #checksum 5278

Query Match 82.5%; Score 80; DB 2; Length 148;
Best Local Similarity 75.0%; Pred. No. 7,44e-05;
Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 73 EVCADPKRKQWQ 84
|:|:|:|:|:|
OY 1 EICADPKRKQWQ 12

RESULT 21
ENTRY #type complete
TITLE A32393
ALTERNATE_NAMES #macrophage inflammatory protein-1-alpha precursor - mouse
#heparin-binding chemotaxis protein; L2G5B protein; SCF/MIP-1a; SIS alpha; stem cell inhibitor/macrophage inflammatory protein 1-alpha; T-cell activation protein alpha; ty5
#formal_name Mus musculus #common_name house mouse

```

DATE 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 08-Sep-1997

ACCESSIONS S11685; A32393; S04533; A53885; A30552; PS0303; A27596; S156104

REFERENCE #authors G11685
#journal Nucleic Acids Res. (1990) 18:5561
#title Sequence of the murine haemopoietic stem cell inhibitor/macrophage inflammatory protein 1-alpha gene.
#cross-references EMBL:91016858
#accession S11685

##molecule_type DNA
##residues 1-92 ##label GRO
##cross-references EMBL:X53372; NID:g54062; PID:g297531
##note the authors' translation of the nucleotide sequence differs at several positions from the sequence given

REFERENCE A32393
#authors Kwon, B.S.; Weissman, S.M.
#journal Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1963-1967
#title CDNA sequence of two inducible T-cell genes.
#cross-references M01D:89184547
#accession A32393

##molecule_type mRNA
##residues 1-92 ##label KMO
##cross-references GB:J04491; NID:g201524; PID:g201525
#accession S04533

REFERENCE #authors Davatelis, G.; Tekamp-Olson, P.; Wolpe, S.D.; Hermesen, K.; Luedke, C.; Gallegos, C.; Colt, D.; Merryweather, J.; Cerami, A.
#journal J. Exp. Med. (1988) 167:1939-1944
#title Cloning and characterization of a cDNA for murine macrophage inflammatory protein (MIP), a novel monokine with inflammatory and chemokinetic properties.
#cross-references EMBL:88258380
#accession S04533

##molecule_type mRNA
##residues 1-48, 'E', '50-90', 'I', '92 ##label DM2
##cross-references EMBL:X12531
##note the authors translated the codon GAG for residue 49 as Asp and ATT for residue 91 as Asn
the sequence has been corrected in reference A53885

REFERENCE #note A53885
#authors Davatelis, G.; Tekamp-Olson, P.; Wolpe, S.D.; Hermesen, K.; Luedke, C.; Gallegos, C.; Colt, D.; Merryweather, J.; Cerami, A.
#journal J. Exp. Med. (1989) 170:2189
#contents Erratum
#accession A53885

##molecule_type mRNA
##residues 1-92 ##label DAV
##cross-references EMBL:X12531; NID:g53122; PID:g53123
#accession A30552

REFERENCE #authors Brown, K.D.; Zurawski, S.M.; Nosmann, T.R.; Zurawski, G.
#journal J. Immunol. (1989) 142:679-687
#title A family of small inducible proteins secreted by leukocytes are members of a new superfamily that includes leukocytes and fibroblast-derived inflammatory agents, growth factors, and indicators of various activation processes.
#cross-references M01D:8903958
#accession A30552

##molecule_type mRNA
##residues 1-21, 'L', '23-61', 'A', '63-92 ##label BRO
##cross-references GB:M23447; NID:g533240; PID:g533241
#accession J10088

REFERENCE #authors Sherry, B.; Tekamp-Olson, P.; Gallegos, C.; Bauer, D.; Davatelis, G.; Wolpe, S.D.; Mastiarz, F.; Colt, D.; Cerami, A.
#journal J. Exp. Med. (1988) 168:2251-2259
#title Resolution of the two components of macrophage inflammatory protein 1, and cloning and characterization of one of those components, macrophage inflammatory protein 1 beta.
#cross-references M01D:89067830
#accession PS0303

##molecule_type mRNA
##residues 24-33, 'XX', '36-54 ##label SHE
#accession A27596
#authors Wolpe, S.D.; Davatelis, G.; Sherry, B.; Beutler, B.; Heese, D.G.; Nguyen, H.T.; Moldawer, L.L.; Nathan, C.F.; Lowry, S.F.; Cerami, A.

#journal J. Exp. Med. (1988) 167:570-581
#title Macrophages secrete a novel heparin-binding protein with inflammatory and neutrophil chemokinetic properties.
#cross-references M01D:88154745
#accession A27596

##molecule_type protein
##residues 24-33 'XX', '36-42 ##label MOI
##note 26-Met, 30-Pro, and 39-Thr were also found

REFERENCE #authors Wilmer, U.; Yang, Z.; van Deventer, S.; Manogue, K.R.; Sherry, B.; Cerami, A.
#journal J. Immunol. (1991) 146:4031-4040
#title Genomic structure of murine macrophage inflammatory protein-1-alpha and conservation of potential regulatory sequences with a human homolog, LD78.
#cross-references M01D:91237116
#accession I56104

##status preliminary; translated from GB/EMBL/DBJ
##molecule_type DNA
##residues 1-92 ##label RES
##cross-references GB:M73061; NID:g199694; PID:g199695
#accession M73061

COMMENT This protein is a monokine.
GENETICS
#introns 23/3; 26/1; 63/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS heparin binding
FEATURE 1-23 #domain signal sequence #status predicted #label SIG\experimental #label MAT
24-92 #product macrophage inflammatory protein #status experimental #label MAT

SUMMARY #length 92 #molecular_weight 10345 #checksum 5009

Query Match 78.48; Score 76; DB 2; Length 92;
Best Local Similarity 66.78; Pred. No. 5.18e-04;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 71 QICADSKETWQ 82
QY 1 EICADPKQKWQ 12

RESULT 22
ENTRY S07723 #type complete
TITLE Immediate-early serum-responsive protein JE - rat
ALTERNATE_NAMES monocytic chemoattractant protein-1
ORGANISM #formal_name Rattus norvegicus #common_name Norway rat
DATE 29-Jan-1993 #sequence_revision 29-Jan-1993 #text_change 08-Sep-1997
#accession S07723; JN0128

REFERENCE #authors Timmers, H.T.M.; Pronk, G.J.; Bos, J.L.; van der Eb, A.J.
#journal Nucleic Acids Res. (1990) 18:23-34
#title Analysis of the rat JE gene promoter identifies an AP-1 binding site essential for basal expression but not for TPA induction.
#cross-references M01D:90174947
#accession S07723

##molecule_type DNA
##residues 1-148 ##label TIM
##cross-references EMBL:X17053; NID:g55530; PID:g55531
#accession JN0128

REFERENCE #authors Yoshimura, T.; Takeya, M.; Takahashi, K.
#journal Biochem. Biophys. Res. Commun. (1991) 174:504-509
#title Molecular cloning of rat monocytic chemoattractant protein-1 (MCP-1) and its expression in rat spleen cells and tumor cell lines.
#cross-references M01D:91128376

#accession JN0128
#molecule_type mRNA
#residues 1-148 #label YOS
#cross-references GB:M57441; NID:g205333; PID:g205334
#experimental_source spleen cells
#note the authors translated the codon GAA for residue 62 as
Lys and GCT for residue 63 as Leu

GENETICS
#introns 26/1; 65/2
CLASSIFICATION #superfamily macrophage inflammatory protein
FEATURE
1-23
24-148
#domain signal sequence #status predicted #label SIG
#product immediate-early serum-responsive protein JE
#status predicted #label MAT
SUMMARY #length 148 #molecular-weight 16460 #checksum 4876

Query Match 78.4%; Score 76; DB 2; Length 148;
Best Local Similarity 75.0%; Pred. No. 5.18e-04;
Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 73 EICADPKKRWQ 84
:::|||||:::
OY 1 EICADPKKRWQ 12

RESULT 23
ENTRY A53497 #type complete
TITLE pre-B-cell growth-stimulating factor precursor - mouse
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 02-Jun-1994 #sequence_revision 02-Jun-1994 #text_change
10-Sep-1997
ACCESSIONS A53497; I59582
REFERENCE A53497
#authors Nagasawa, T.; Kikutani, H.; Kishimoto, T.
#journal Proc. Natl. Acad. Sci. U.S.A. (1994) 91:2305-2309
#title Molecular cloning and structure of a pre-B-cell
growth-stimulating factor.
#accession A53497
#status preliminary
#molecule_type mRNA
#residues 1-89 #label NAG
#cross-references GB:D21072; NID:g413905; PID:d1005177; PID:g468457
REFERENCE I59582
#authors Tashiro, K.; Tada, H.; Heilker, R.; Shirozu, M.; Nakano, T.;
Honjo, T.
#journal Science (1993) 261:600-603
#title Signal sequence trap: a cloning strategy for secreted
proteins and type I membrane proteins.
#cross-references MUID:93342488
#accession I59582
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-89 #label RES
#cross-references GB:L12029; NID:g393179; PID:g393180

GENETICS
#gene SDF-1-alpha
KEYWORDS cytokine
SUMMARY #length 89 #molecular-weight 10032 #checksum 4622

Query Match 77.3%; Score 75; DB 2; Length 89;
Best Local Similarity 58.3%; Pred. No. 8.37e-04;
Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 69 QVCIDPKLWQ 80
:::|||||:::
OY 1 EICADPKKRWQ 12

RESULT 24
ENTRY I53416 #type complete
TITLE interleukin-8 homolog - mouse
ORGANISM #formal_name Mus sp. #common_name mouse
DATE 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change

28-Feb-1997
ACCESSIONS I53416
REFERENCE I53416
#authors Jiang, W.; Zhou, P.; Kahn, S.M.; Tomita, N.; Johnson, M.D.;
Weinstein, I.B.
#journal Exp. Cell Res. (1994) 215:284-293
#title Molecular cloning of TPAP1, a gene whose expression is
repressed by the tumor promoter 12-O-tetradecanoylphorbol
13-acetate (TPA).
#cross-references MUID:95073497
#accession I53416
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-89 #label RES
#cross-references GB:S74318; NID:g786393; PID:g786394

GENETICS
#gene TPAP1
SUMMARY #length 89 #molecular-weight 10032 #checksum 4622

Query Match 77.3%; Score 75; DB 2; Length 89;
Best Local Similarity 58.3%; Pred. No. 8.37e-04;
Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 69 QVCIDPKLWQ 80
:::|||||:::
OY 1 EICADPKKRWQ 12

RESULT 25
ENTRY G01540 #type complete
TITLE cytokine SDF-1-beta - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 21-Dec-1996 #sequence_revision 06-Jun-1997 #text_change
17-Jul-1998
ACCESSIONS G01540
REFERENCE G07697
#authors Scollita, L.D.
#submission submitted to the EMBL Data Library, October 1994
#accession G01540
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-93 #label SPO
#cross-references EMBL:U16752; NID:g1272194; PID:g571508
SUMMARY #length 93 #molecular-weight 10666 #checksum 6309

Query Match 77.3%; Score 75; DB 2; Length 93;
Best Local Similarity 58.3%; Pred. No. 8.37e-04;
Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 69 QVCIDPKLWQ 80
:::|||||:::
OY 1 EICADPKKRWQ 12

RESULT 26
ENTRY I81182 #type complete
TITLE cytokine - mouse
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change
28-Feb-1997
ACCESSIONS I81182
REFERENCE I59582
#authors Tashiro, K.; Tada, H.; Heilker, R.; Shirozu, M.; Nakano, T.;
Honjo, T.
#journal Science (1993) 261:600-603
#title Signal sequence trap: a cloning strategy for secreted
proteins and type I membrane proteins.
#cross-references MUID:93342488
#accession I81182
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-93 #label RES
#cross-references GB:L12030; NID:g393181; PID:g393182

GENETICS
#gene SDF-1-beta
SUMMARY #length 93 #molecular-weight 10561 #checksum 5309

Query Match 77.3%; Score 75; DB 2; Length 93;
Best Local Similarity 58.3%; Pred. No. 8.37e-04;
Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 69 OYCIPKXKMIQ 80
 :::1111111
Oy 1 EICADPKOKRWQ 12

RESULT 27
ENTRY A37034 #type complete
TITLE Interleukin 8 precursor - human
ALTERNATE_NAMES beta-thromboglobulin-like protein; fibroblast-derived neutrophil-activating factor alpha; lung carcinoma-derived chemotaxin; lymphocyte-derived neutrophil-activating factor; monocyte-derived neutrophil chemotactic factor; monocyte-derived neutrophil-activating factor

ORGANISM #formal_name Homo sapiens #common_name man
DATE 08-Dec-1992 #sequence_revision 08-Dec-1992 #text_change 13-Sep-1998

ACCESSIONS A37034; J10041; A32791; S37634; P10107; A28598; A27488;
A39960; A60401; A60591; S15827; S04316; A60567; A60847;
S15417; S03975; I54560; I55927; I37902; S67519
A37034

REFERENCE
#authors Mukaide, N.; Shiroo, M.; Matsushima, K.
#journal J. Immunol. (1989) 143:1366-1371
#title Genomic structure of the human monocyte-derived neutrophil chemotactic factor IL-8.
#cross-references MUID:89309826
#accession A37034
##molecule_type DNA
##residues 1-99 ##label MUK
#cross-references GB:M28130; NID:g186367; PID:g186368
#note the authors failed to translate the last thirty-six nucleotides of the second exon

REFERENCE
#authors Matsushima, K.; Morishita, K.; Yoshimura, T.; Lavu, S.; Kobayashi, Y.; Lew, W.; Appella, E.; Kung, H.F.; Leonard, E.J.; Oppenheim, J.J.
#journal J. Exp. Med. (1988) 167:1883-1893
#title Molecular cloning of a human monocyte-derived neutrophil chemotactic factor (MDNCF) and the induction of MDNCF mRNA by interleukin 1 and tumor necrosis factor.
#cross-references MUID:88258376
#accession J10041
##molecule_type mRNA
##residues 1-99 ##label MA1
#cross-references EMBL:Y00787; NID:g34518; PID:g34519
#note the sequence shows similarity to several platelet-derived factors, a v-src-induced protein, a IFN-gamma-inducible protein

REFERENCE
#authors Kowalski, J.; Denhardt, D.T.
#journal Mol. Cell. Biol. (1989) 9:1946-1957
#title Regulation of the mRNA for monocyte-derived neutrophil-activating peptide in differentiating HL60 promyelocytes.
#cross-references MUID:89313739
#accession A32791
##molecule_type mRNA
##residues 1-99 ##label KOM
#cross-references GB:M26383; NID:g188627; PID:g188628

REFERENCE
#authors King, C.H.; Gordon, G.S.; Konieczkowski, M.; Sedor, J.R.
#submission submitted to the EMBL Data Library, February 1992
#accession S37634
#status preliminary
#molecule_type mRNA

##residues 1-97 ##label KIN
#cross-references EMBL:Z11686; NID:g33958; PID:g33959
REFERENCE
#authors PL0107
#authors Suzuki, K.; Miyasaka, H.; Ota, H.; Yamakawa, Y.; Tagawa, M.; Kuramoto, A.; Mizuno, S.
#journal J. Exp. Med. (1989) 169:1895-1901
#title Purification and partial primary sequence of a chemotactic protein for polymorphonuclear leukocytes derived from human lung giant cell carcinoma LU65C cells.
#cross-references MUID:89279141
#accession PL0107
##molecule_type protein
##residues 23-32, 'XR', '35', 'X', '37-52', 'L', '54' ##label SUZ
#experimental_source lung giant cell carcinoma LU65C

REFERENCE
#authors Gregory, H.; Young, J.; Schroeder, J.M.; Mrowietz, U.; Christophers, E.
#journal Biochem. Biophys. Res. Commun. (1988) 151:883-890
#title Structure determination of a human lymphocyte derived neutrophil activating peptide (LYNAP).
#cross-references MUID:88162914
#accession A28598
##molecule_type protein
##residues 28-99 ##label GRE

REFERENCE
#authors Walz, A.; Pevert, P.; Aschauer, H.; Bagdolini, M.
#journal Biochem. Biophys. Res. Commun. (1987) 149:755-761
#title Purification and amino acid sequencing of NAF, a novel neutrophil-activating factor produced by monocytes.
#cross-references MUID:88106502
#accession A27488
##molecule_type protein
##residues 28-59 ##label WAL

REFERENCE
#authors Yoshimura, T.; Matsushima, K.; Tanaka, S.; Robinson, E.A.; Appella, E.; Oppenheim, J.J.; Leonard, E.J.
#journal Proc. Natl. Acad. Sci. U.S.A. (1987) 84:9233-9237
#title Purification of a human monocyte-derived neutrophil chemotactic factor that has peptide sequence similarity to other host defense cytokines.
#cross-references MUID:88097462
#accession A39960
##molecule_type protein
##residues 28-69 ##label YOS

REFERENCE
#authors Schroeder, J.M.; Sticherling, M.; Henneicke, H.H.; Preissner, W.C.; Christophers, E.
#journal J. Immunol. (1990) 144:2223-2232
#title IL-1alpha or tumor necrosis factor-alpha stimulate release of three NAP-1/IL-8-related neutrophil chemotactic proteins in human dermal fibroblasts.
#cross-references MUID:90187866
#accession A60401
##molecule_type protein
##residues 23-32 ##label SCH
#experimental_source dermal fibroblasts
#note a minor component of this material (15%) includes an additional two amino acids at the amino end

REFERENCE
#authors Van Damme, J.; Decock, B.; Conings, R.; Lenaerts, J.P.; Opdenakker, G.; Billiau, A.
#journal Eur. J. Immunol. (1989) 19:1189-1194
#title The chemotactic activity for granulocytes produced by virally infected fibroblasts is identical to monocyte-derived interleukin 8.
#accession A60591
##molecule_type protein
##residues 23-33, 'X', '35', 'X', '37-42' ##label VAN

REFERENCE
#authors Nakegawa, H.; Hatakeyama, S.; Ikesue, A.; Miyai, H.
#journal FEBS Lett. (1991) 282:412-414
#title Generation of interleukin-8 by plasmin from AVPR-interleukin-8, the human fibroblast-derived

neutrophil chemotactic factor.
#cross-references MUID:91243843
#accession S15827
##molecule_type protein
##residues 23-33,'X',35,'X',37-47 #label FEB
REFERENCE S04216
#authors van Damme, J.; van Beeumen, J.; Conings, R.; Decock, B.; Billiau, A.
#journal Eur. J. Biochem. (1989) 181:337-344
#title Purification of granulocyte chemotactic peptide/interleukin-8 reveals N-terminal sequence heterogeneity similar to that of beta-thromboglobulin.
#cross-references MUID:89231715
#accession S04216
##molecule_type protein
##residues 21-67 #label VA2
REFERENCE A60567
#authors Yoshimura, T.; Robinson, E.A.; Appella, E.; Matsushima, K.; Showalter, S.D.; Skeel, A.; Leonard, E.J.
#journal Mol. Immunol. (1989) 26:87-93
#title Three forms of monocyte-derived neutrophil chemotactic factor (MDNCF) distinguished by different lengths of the amino-terminal sequence.
#accession A60567
##molecule_type protein
##residues 21-33,'X',35,'X',37-47 #label Y02
#note the forms starting from positions 21, 23, and 28 represented 8%, 47%, and 45%, respectively, of total interleukin-8

#accession A60847
##molecule_type protein
##residues 28-47 #label VA3
REFERENCE S15417
#authors Car, B.D.; Baggiolini, M.; Walz, A.
#journal Biochem. J. (1991) 275:581-584
#title Formation of neutrophil-activating peptide 2 from platelet-derived connective-tissue-activating peptide III by different tissue proteases.
#cross-references MUID:91248085
#accession S15417
##status preliminary
##molecule_type protein
##residues 28-99 #label CAR
REFERENCE S03975
#authors Golds, E.E.; Mason, P.; Nyirkos, P.
#journal Biochem. J. (1989) 259:585-588
#title Inflammatory cytokines induce synthesis and secretion of gro protein and a neutrophil chemotactic factor but not beta-2-microglobulin in human synovial cells and fibroblasts
#cross-references MUID:89246368
#accession S03975
##molecule_type protein
##residues 23-46 #label GOL
REFERENCE I54560
#authors Hotta, K.; Hayashi, K.; Ishikawa, J.; Tagawa, M.; Hashimoto, K.; Mizuno, S.; Suzuki, K.
#journal Immunol. Lett. (1990) 24:165-170
#title Coding region structure of interleukin-8 gene of human lung giant cell carcinoma LU65C cells that produce luteal/interleukin-8: homogeneity in interleukin-8 genes.
#cross-references MUID:90346419

Note: remainder of annotations omitted.
Query Match 77.3%; Score 75; DB 2; Length 99;
Best Local Similarity 66.7%; Pred. No. 8.37e-04;

Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;
Db 75 ELCDLPKKNWQ 86
||| |||: |||
Qy 1 EICADPKQKWQ 12

RESULT 28
ENTRY I48148 #type complete
TITLE Neutrophil attractant protein-1 - guinea pig
ORGANISM #formal_name Cavia porcellus #common_name guinea pig
DATE 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 23-Feb-1997
ACCESSIONS I48148
REFERENCE I48148
#authors Yoshimura, T.; Johnson, D.G.
#journal J. Immunol. (1993) 151:6225-6226
#title cDNA cloning and expression of guinea pig neutrophil attractant protein-1 (NAP-1): NAP-1 is highly conserved in guinea pig.
#cross-references MUID:94065176
#accession I48148
##status preliminary; translated from GB/EMBL/DBJ
##molecule_type DNA
##residues 1-101 #label RES
#cross-references GB:I04986; NID:9459764; PID:9459765
GENETICS
#gene NAP-1
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 101 #molecular_weight 11414 #checksum 2363

Query Match 77.3%; Score 75; DB 2; Length 101;
Best Local Similarity 66.7%; Pred. No. 8.37e-04;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
Db 75 QLCDPKKKWQ 86
||| ||| |||
Qy 1 EICADPKQKWQ 12

RESULT 29
ENTRY A46539 #type complete
TITLE monocyte chemoattractant cytokine RANTES precursor - mouse
ALTERNATE_NAMES RANTES
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 18-Jun-1993 #sequence_revision 16-Aug-1996 #text_change 11-Sep-1998
ACCESSIONS I48875; A46539; I48654; I56970
REFERENCE I48875
#authors Danoff, T.M.; Lalley, P.A.; Chang, Y.S.; Heeger, P.S.; Neilson, E.G.
#journal J. Immunol. (1994) 152:1182-1189
#title Cloning, genomic organization, and chromosomal localization of the Scys gene encoding the murine chemokine RANTES.
#cross-references MUID:94132613
#accession I48675
##status preliminary; translated from GB/EMBL/DBJ
##molecule_type DNA
##residues 1-91 #label DAN
#cross-references EMBL:U02298; NID:9460090; PID:9460091
REFERENCE A46539
#authors Schall, T.J.; Simpson, N.J.; Mak, J.Y.
#journal Eur. J. Immunol. (1992) 22:1477-1481
#title Molecular cloning and expression of the murine RANTES cytokine: structural and functional conservation between mouse and man.
#cross-references MUID:92289805
#accession A46539
##molecule_type mRNA
##residues 1-18,'A',20-91 #label SCH
##experimental_source macrophage cell line PUS-1.8
#note sequence extracted from NCBI backbone (NCBIN:106768, NCBIPI:106770)

REFERENCE I48654
#authors Shin, H.S.; Drysdale, B.E.; Shin, M.L.; Noble, P.W.; Fisher, S.N.; Paznekas, W.A.
#journal Mol. Cell. Biol. (1994) 14:2914-2925
#title Definition of a lipopolysaccharide-responsive element in the 5'-flanking regions of MURantes and crg-2.
#cross-references MUID:94217689
#accession I48654
#status translation not shown; translated from GB/EMBL/DBJ
#molecule_type DNA
#residues 1-91 #label SHI
#cross-references EMBL:X70675; NID:g475205; PID:g475206
REFERENCE I56970
#authors Neilson, E.G.; Krensky, A.
#journal Kidney Int. (1992) 41:220-225
#title Isolation and characterization of cDNA from renal tubular epithelium encoding murine Rantes: A small interleukin from the Scy superfamily.
#cross-references MUID:92277990
#accession I56970
#status translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-40, 'E', 42-91 #label NEI
#cross-references GB:M77747; NID:9200649; PID:9200650
COMMENT This chemoattractant for monocytes but not neutrophils is an immediate-early response protein to LPS stimulation.
GENETICS
#introns 26/1; 63/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS chemotaxis; cytokine; immediate-early protein; inflammation
FEATURE
1-23 #domain signal sequence #status predicted #label SIG
24-91 #product monocyte chemoattractant cytokine RANTES
#status predicted #label MAT
#length 91 #molecular_weight 10071 #checksum 3010
SUMMARY
Query Match 76.3%; Score 74; DB 1; Length 91;
Best Local Similarity 58.3%; Pred. No. 1.35e-03;
Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;
Db 71 QVCADPESWVQ 82
QY 1 EICADPKQKWVQ 12

RESULT 30
ENTRY C60407 #type fragment
TITLE monocyte adherence-induced protein 5 beta - human (fragment)
ORGANISM #formal_name Homo sapiens #common_name man
DATE 06-Nov-1992 #sequence_revision 06-Nov-1992 #text_change 03-May-1996
ACCESSION C60407
REFERENCE A60407
#authors Sporn, S.A.; Elerman, D.F.; Johnson, C.E.; Morris, J.; Martin, G.; Ladner, M.; Haskill, S.
#journal J. Immunol. (1990) 144:4434-4441
#title Monocyte adherence results in selective induction of novel genes sharing homology with mediators of inflammation and tissue repair.
#cross-references MUID:90257367
#accession C60407
#status preliminary: not compared with conceptual translation
#molecule_type mRNA
#residues 1-50 #label SPO
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 50 #checksum 9927

Query Match 74.2%; Score 72; DB 2; Length 50;
Best Local Similarity 58.3%; Pred. No. 3.47e-03;
Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;
Db 30 QVCADPESWVQ 41
QY 1 EICADPESWVQ 12

QY 1 EICADPESWVQ 12

Search completed: Thu Apr 1 07:24:36 1999
Job time : 24 secs.

97 49 50.5 532 1 INV4_YEAST INVERTASE 4 PRECURSOR 2.74e+01
 98 49 50.5 856 1 ENV_HVISC ENVELOPE POLYPROTEIN G 2.74e+01
 99 49 50.5 861 1 ENV_HV1KB ENVELOPE POLYPROTEIN G 2.74e+01
 100 49 50.5 1675 1 CLH_RAT CLATHRIN HEAVY CHAIN. 2.74e+01

ALIGNMENTS

RESULT 1
 AC MCPI_HUMAN STANDARD; PRT; 99 AA.
 AC P13500;
 DT 01-JAN-1990 (REL. 13, CREATED)
 DT 01-JAN-1990 (REL. 13, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE CHEMOTACTIC
 DE AND ACTIVATING FACTOR) (MCAF) (MONOCYTE SECRETORY PROTEIN JF)
 DE (MONOCYTE CHEMOTACTIC PROTEIN 1) (HC11) (SMALL INDUCIBLE CYTOKINE
 A2).
 OS SCY2 OR MCPI.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 89165862.
 RA FUTURATI Y., NOMURA H., NOTAKE M., OYAMADA Y., FUKUI T., YAMADA M.,
 RA LARSEN C.G., OPPENHEIM J.J., MATSUSHITA K.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 159:249-255(1989).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 90097880.
 RA ROLLINS B.J., STIER P., ERNST T., WONG G.G.;
 RL MOL. CELL. BIOL. 9:4687-4695(1989).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 89153605.
 RA YOSHIMURA T., YUKHI N., MOORE S.K., APPELLA E., LERMAN M.I.,
 RA LEONARD E.J.;
 RL FEBS LETT. 244:487-493(1989).
 RN [4]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 90290466.
 RA SHY Y.J., LI Y.S., KOLATKUDY P.E.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 169:346-351(1990).
 RN [5]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 91207938.
 RA CHANG H.C., HSU F., FREEMAN G.J., GRIFFIN J.D., REINHERZ E.L.;
 RL INT. IMMUNOL. 1:388-399(1989).
 RN [6]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 94150478.
 RA LI Y.S., SHY Y.J., WRIGHT J.G., VALENTE A.J., CORNHILL J.F.,
 RA KOLATKUDY P.E.;
 RL MOL. CELL. BIOPHYS. 126:61-68(1993).
 RN [7]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 92095166.
 RA YOSHIMURA T., LEONARD E.J.;
 RL ADV. EXP. MED. BIOL. 305:47-56(1991).
 RN [8]
 RP SEQUENCE OF 24-99.
 RX MEDLINE: 89184525.
 RA ROBINSON E.A., YOSHIMURA T., LEONARD E.J., TANAKA S., GRIFFIN P.R.,
 RA SHABANOWITZ J., HUNT D.F., APPELLA E.;
 RL PROC. NATL. ACAD. SCI. U.S.A. 86:1850-1854(1989).
 RN [9]
 RP SEQUENCE OF 29-53 AND 82-92.
 RX MEDLINE: 90211336.
 RA DECOCK B., CONINGS R., LEMBERTS J.-P., BILING A., VAN DANNE J.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 167:904-909(1990).
 RN [10]
 RP 3D-STRUCTURE MODELLING.

RX MEDLINE: 91312872.
 RA GRONENBORN A.M., CLORE G.M.;
 RL PROTEIN ENG. 4:263-269(1991).
 RN [11]
 RP X-RAY CRYSTALLOGRAPHY (1.85 ANGSTROMS).
 RX MEDLINE: 97143315.
 RA LUBKOWSKI J., BUJAC G., DOMATILE P.J., HANDEL T.M., WLODANER A.;
 RL NAT. STRUCT. BIOL. 4:64-69(1997).
 RN [12]
 RP STRUCTURE BY NMR.
 RX MEDLINE: 96234959.
 RA HANDEL T.M., DOMATILE P.J.;
 RL BIOCHEMISTRY 35:6569-6584(1996).
 RN [13]
 RP EFFECT OF DELETION OF N-TERMINAL RESIDUES.
 RX MEDLINE: 96155223.
 RA WEEER M., UGOCIONI M., BAGGIOLINI M., CLARK-LEWIS I., DAHINDEN C.A.;
 RL J. EXP. MED. 183:681-685(1996).
 RN [14]
 RP MUTAGENESIS.
 RX MEDLINE: 94253189.
 RA ZHANG Y.J., RUTLEDGE B.J., ROLLINS B.J.;
 RL J. BIOL. CHEM. 269:15918-15924(1994).
 RN [15]
 RP SUBUNIT.
 RX MEDLINE: 97053697.
 RA KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.;
 RL FEBS LETT. 395:277-282(1996).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND BASOPHILS
 CC BUT NOT NEUTROPHILS OR EOSINOPHILS. AUGMENTS MONOCYTE ANTI-TUMOR
 CC ACTIVITY. HAS BEEN IMPLICATED IN THE PATHOGENESIS OF DISEASES.
 CC CHARACTERIZED BY MONOCYTIC INFILTRATES, LIKE PSORIASIS, RHEUMATOID
 CC ARTHRITIS OR ATHEROSCLEROSIS. MAY BE INVOLVED IN THE RECRUITMENT
 CC OF MONOCYTES INTO THE ARTERIAL WALL DURING THE DISEASE PROCESS OF
 CC ATHEROSCLEROSIS.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER, IN EQUILIBRIUM.
 CC -1- PM: PROCESSING AT THE N-TERMINUS CAN REGULATE RECEPTOR AND TARGET
 CC CELL SELECTIVITY. DELETION OF THE AMINO-TERMINAL RESIDUE CONVERTS
 CC IT FROM AN ACTIVATOR OF BASOPHIL TO AN EOSINOPHIL CHEMOTACTICANT.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL: M31626; G386961; -;
 DR EMBL: M30816; G386961; JOINED.
 DR EMBL: M31625; G386961; JOINED.
 DR EMBL: M24545; G307183; -;
 DR EMBL: M28226; G338009; -;
 DR EMBL: X14768; G34514; -;
 DR EMBL: M37719; G487124; -;
 DR EMBL: M28225; G338007; -;
 DR EMBL: M28224; G338007; JOINED.
 DR EMBL: M28224; G338007; JOINED.
 DR EMBL: M69738; G545465; -;
 DR EMBL: S71513; G240868; -;
 DR EMBL: A17786; G641145; -;
 DR PIR: A35474; A35474.
 DR PIR: S03339; S03339.
 DR PDB: IDOK; 12-MAR-97.
 DR PDB: IDOL; 12-MAR-97.
 DR PDB: IDOM; 14-OCT-96.
 DR PDB: IDON; 14-OCT-96.
 DR PDB: IMCA; 15-OCT-94.
 DR MIN: 158105; -;
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; 3D-STRUCTURE.
 FT SIGNAL 1 23
 FT CHAIN 24 99
 FT MOD_RES 24 24
 FT DISULFID 34 59
 FT DISULFID 35 75
 FT CARBOHYD 37 76
 FT VARIANT 76 37
 FT MUTAGEN 24 24
 FT 25 32
 FT POTENTIAL.
 FT A->T.
 FT MISSING: LOSS OF ACTIVITY.
 FT MISSING: LOSS OF ACTIVITY.


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FT MUTAGEN 24 85 MISSING: 90% REDUCTION IN ACTIVITY.
FT MUTAGEN 24 91 MISSING: 83% REDUCTION IN ACTIVITY.
FT MUTAGEN 26 26 D->A: 90% REDUCTION IN ACTIVITY.
FT MUTAGEN 29 29 N->A: 50% REDUCTION IN ACTIVITY.
FT MUTAGEN 47 47 R->F: 95% REDUCTION IN ACTIVITY.
FT MUTAGEN 50 50 S->O: 40% REDUCTION IN ACTIVITY.
FT MUTAGEN 51 51 Y->D: LOSS OF ACTIVITY.
FT MUTAGEN 53 53 R->L: LOSS OF ACTIVITY.
FT MUTAGEN 91 91 D->L: 90% REDUCTION IN ACTIVITY.
SQ SEQUENCE 99 AA: 11025 MW; 5355B695 CRC32;

Query Match
Best Local Similarity 100.0%; Score 97; DB 1; Length 99;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 73 EICADPKOKWQ 84
1 EICADPKOKWQ 12

RESULT 2
ID MCP1_CANFA STANDARD; PRT; 101 AA.
AC P52203;
DT 01-OCT-1996 (REL. 34, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
DE CHEMOATTRACTANT PROTEIN-1).
GN SCYA2 OR MCP1.
OS CANIS FAMILIARIS (DOG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; CARNIVORA.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-JUGULAR VEIN ENDOTHELIAL;
RX MEDLINE: 91716620.
RA KUWAR A.G., BALLANTYNE C.M., MICHAEL L.H., KUKIELA G.L., YOKER K.A.,
RA LINDSEY M.L., HAKINS H.K., BIRDSALL H.H., MACKAY C.R., LAROSA G.J.,
RA ROSEN R.D., SMITH C.W., EITMAN M.L.;
RL CIRCULATION 95:693-700(1997).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS. IMPORTANT FACTOR IN THE COURSE OF THE INFLAMMATORY
CC REACTION TO REPERFUSION OF THE PREVIOUSLY ISCHEMIC MYOCARDIUM.
CC MAY PLAY A SIGNIFICANT ROLE IN MONOCYTE TRAFFICKING INTO THE
CC REPERFUSED MYOCARDIUM.
CC -1- SUBUNIT: MONOMER OR HOMODIMER. IN EQUILIBRIUM (BY SIMILARITY).
CC -1- INDUCTION: BY TNF-ALPHA.
CC -1- TISSUE SPECIFICITY: ENDOTHELIUM OF SMALL VEINS AND INTRAFASCICULAR
CC VEINS. AND INFILTRATING LEUKOCYTES.
CC -1- SIMILARITY: BELONGS TO THE INTERKINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: U29653; G1144186; -
DR PROSITE: PS00472; SMALL CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
FT CHAIN 1 23 BY SIMILARITY
FT MOD_RES 24 101 MONOCYTE CHEMOTACTIC PROTEIN 1.
FT DISULFID 34 59 BY SIMILARITY
FT DISULFID 35 75 BY SIMILARITY
SQ SEQUENCE 101 AA: 11121 MW; A7075B14 CRC32;

Query Match
Best Local Similarity 100.0%; Score 97; DB 1; Length 101;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 73 EICADPKOKWQ 84
1 EICADPKOKWQ 12

RESULT 3
ID MCP1_PIG STANDARD; PRT; 99 AA.

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AC P42831;
DT 01-NOV-1995 (REL. 32, CREATED)
DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
GN SCYA2.
OS SUS SCROFA (PIG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 94183284.
RA HOSANG K., KNOKE I., KLAUDINY J., WEMPE F., WUTTKE W., SCHEIT K.H.;
RL BIOCHEM. BIOPHYS. RES. COMMON. 199:962-968(1994).
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE-BRAIN;
RA ZACH O. R.F.;
RL SUBMITTED (JUL-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS.
CC -1- SUBUNIT: MONOMER OR HOMODIMER. IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERKINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: Z48479; G683717; -
DR EMBL: X79416; G872313; -
DR PROSITE: PS00472; SMALL CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
FT CHAIN 1 23 BY SIMILARITY
FT MOD_RES 24 24 MONOCYTE CHEMOTACTIC PROTEIN 1.
FT DISULFID 34 59 PYRROLIDONE CARBOXYLIC ACID (BY
FT DISULFID 35 75 SIMILARITY).
SQ SEQUENCE 99 AA: 10976 MW; ECC3AFB4 CRC32;

Query Match
Best Local Similarity 99.0%; Score 96; DB 1; Length 99;
Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 73 EICADPKOKWQ 84
1 EICADPKOKWQ 12

RESULT 4
ID MCP2_BOVIN STANDARD; PRT; 99 AA.
AC O09141;
DT 01-NOV-1995 (REL. 32, CREATED)
DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
DE CHEMOATTRACTANT PROTEIN 2).
GN SCYA2 OR MCP2.
OS BOS TAURUS (BOVINE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 94114084.
RA WEMPE F., HANES J., SCHEIT K.H.;
RL DNA CELL BIOL. 13:1-8(1994).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN
CC CAN BIND HEPARIN.
CC -1- SUBUNIT: MONOMER OR HOMODIMER. IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERKINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: S67954; E118856; -
DR EMBL: S67956; G544997; -
DR PROSITE: PS00472; SMALL CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23 BY SIMILARITY
FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 2.

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FT MOD_RES 24 24 PYROLIDONE CARBOXYLIC ACID (BY
 FT DISULFID 34 59 SIMILARITY).
 FT DISULFID 35 75 BY SIMILARITY.
 SQ SEQUENCE 99 AA; 10900 MW; 9BA2CD26 CRC32;
 Query Match 96.9%; Score 94; DB 1; Length 99;
 Best Local Similarity 83.3%; Pred. No. 1.61e-09;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
 Db 73 DVCADPKOKWQ 84
 Qy 1 EICADPKOKWQ 12
 RESULT 5
 ID MCP4_HUMAN STANDARD; PRT; 98 AA.
 AC 099616;
 DT 15-JUL-1998 (REL. 36, CREATED)
 DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 4 PRECURSOR (MCP-4) (MONOCYTE
 DE CHEMOTACTICANT PROTEIN 4) (CK-BETA10) (MCP-1).
 GN SCY13 OR MCP4 OR NCCL.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE=HEART;
 RX MEDLINE: 97113354.
 RA GARCIA-ZEBEDA E.A., COMBADIENE C., ROTHENBERG M.E., SARAFI M.N.,
 RA LAVIGNE F., HAMID Q., MURPHY P.M., LOSTER A.D.;
 RA J. IMMUNOL. 157:5613-5626(1996).
 RN [2]
 RP SEQUENCE FROM N.A., AND SEQUENCE OF 17-98.
 RC TISSUE=FETAL;
 RX MEDLINE: 96235049.
 RA UGUGCCONT M., LOETSCHER P., FORSMANN U., DEMALD B., LI H., LIMA S.H.,
 RA LI Y., KREIDER B., GAROTTA G., THELEN M., BAGGIOLINI M.;
 RA J. EXP. MED. 183:2379-2384(1996).
 RN [3]
 RP SEQUENCE FROM N.A., AND SEQUENCE OF 22-33.
 RC TISSUE=FETAL;
 RX MEDLINE: 97341179.
 RA BEKHOUT T.A., SARAU H.M., MOORES K., WHITE J.R., ELSHOUBAGY N.,
 RA APELBAUM E., RAPE T.J., BRAUNER M., MAKANA J., FOLEY J.J.,
 RA SCHMIDT D.B., IMBURGIA C., MACNULTY D., MATTHEWS J., O'DONNELL K.,
 RA O'SHANNESSEY D., SCOTT M., GROOT P.H.E., MACPHEE C.;
 RA J. BIOL. CHEM. 272:16404-16413(1997).
 RN [4]
 RP SEQUENCE FROM N.A.
 NA DATE M., GIBSON A.;
 RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCYTES,
 BASOPHILS AND EOSINOPHILS, BUT NOT NEUTROPHILS. SIGNALS THROUGH
 CCR2B AND CCR3 RECEPTORS. PLAYS A ROLE IN THE ACCUMULATION OF
 LEUKOCYTES AT BOTH SIDES OF ALLERGIC AND NONALLERGIC INFLAMMATION.
 CC MAY BE INVOLVED IN THE RECRUITMENT OF MONOCYTES INTO THE ARTERIAL
 WALL DURING THE DISEASE PROCESS OF ARTERIOSCLEROSIS. MAY PLAY A
 CC ROLE IN THE MONOCYTE ATTRACTION IN TISSUES CHRONICALLY EXPOSED TO
 CC EXOGENOUS PATHOGENS.
 CC -1- MASS SPECTROMETRY: MW-9314; MW-ERR-30; METHOD-MALDI; RANGE-17-98.
 CC -1- MASS SPECTROMETRY: MW-8760; MW-ERR-30; METHOD-MALDI; RANGE-22-98.
 CC -1- MASS SPECTROMETRY: MW-8575; MW-ERR-30; METHOD-MALDI; RANGE-24-98.
 CC -1- INDUCTION: BY INTERLEUKIN-1 AND TNF-ALPHA.
 CC -1- TISSUE SPECIFICITY: WIDELY EXPRESSED, FOUND IN SMALL INTESTINE,
 CC THYMUS, COLON, LUNG, TRACHEA, STOMACH AND LYMPH NODE. LOW LEVELS
 CC SEEN IN THE PULMONARY ARTERY SMOOTH MUSCLE CELLS.
 CC -1- THIS PROTEIN CAN BIND HEPARIN.
 CC -1- P1M: ONE MAJOR ISOFORM MCP-4, AND TWO MINOR ISOFORMS (LA)MCP-4 AND
 CC (FNPGLA)MCP-4 ARE PRODUCED BY DIFFERENTIAL SIGNAL CLEAVAGE.
 CC (LA)MCP-4 IS ABOUT 30 FOLD LESS ACTIVE THAN MCP-4.

CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL: U46767; G173123; -.
 DR EMBL: AC002482; G2340091; -.
 DR MIM: 601391; -.
 DR PROSITE: PS00472; SMALL CYTOKINES CC; 1.
 KW CYTOKINE; CHEMOTAXIS; SIGNAL; GLYCOPROTEIN; INFLAMMATORY RESPONSE.
 FT SIGNAL 1 23
 FT CHAIN 1 23
 FT MOD_RES 24 98 MONOCYTE CHEMOTACTIC PROTEIN 4.
 FT DISULFID 34 58 PYROLIDONE CARBOXYLIC ACID.
 FT DISULFID 35 74 BY SIMILARITY.
 FT CARBOHYD 29 29 POTENTIAL.
 SQ SEQUENCE 98 AA; 10986 MW; DF52F6EC CRC32;
 Query Match 95.9%; Score 93; DB 1; Length 98;
 Best Local Similarity 91.7%; Pred. No. 2.92e-09;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
 Db 72 EICADPKOKWQ 83
 Qy 1 EICADPKOKWQ 12
 RESULT 6
 ID MCP4_BOVIN STANDARD; PRT; 99 AA.
 AC P28291;
 DT 01-DEC-1992 (REL. 24, CREATED)
 DT 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
 DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1A PRECURSOR (MCP-1A) (MCP-1) (ACIDIC
 DE SEMINAL FLUID PROTEIN).
 OS BOS TAURUS (BOVINE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE=SEMINAL PLASMA;
 RX MEDLINE: 92096117.
 RA WEMPE F., HENSCHEN A., SCHEIT K.H.;
 RA DNA CELL BIOL. 10:671-679(1991).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC TISSUE=SEMINAL PLASMA;
 RX MEDLINE: 92181448.
 RA WEMPE F., EINSPIERER R., SCHEIT K.H.;
 RA BIOCHEM. BIOPHYS. RES. COMMUN. 183:232-237(1992).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 9438337.
 RA WEMPE F., KOHLMANN J.K., SCHEIT K.H.;
 RA BIOCHEM. BIOPHYS. RES. COMMUN. 202:1272-1279(1994).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
 CC NEUTROPHILS.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL: L32659; G624394; -.
 CC EMBL: M84602; G163395; -.
 DR PIR: A39296; A39296.
 DR PIR: JC2336; JC2336.
 DR HSSP: P13500; 1MCA.
 DR PROSITE: PS00472; SMALL CYTOKINES CC; 1.
 KW CYTOKINE; CHEMOTAXIS; SIGNAL.
 FT SIGNAL 1 23
 FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 1A.
 FT MOD_RES 24 24 PYROLIDONE CARBOXYLIC ACID (BY
 FT DISULFID 34 59 SIMILARITY).
 FT DISULFID 35 75 BY SIMILARITY.
 SQ SEQUENCE 99 AA; 11114 MW; C8F5821D CRC32;
 Query Match 94.8%; Score 92; DB 1; Length 99;
 Best Local Similarity 91.7%; Pred. No. 5.26e-09;

Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 73 EICADPKKQWQ 84
1 EICADPKKQWQ 12

QY

RESULT 7
ID MCEP1_RABIT STANDARD; PRT; 125 AA.
AC P28292;
DT 01-DEC-1992 (REL. 24, CREATED)
DT 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
GN SCY2.
OS ORYCTOLAGUS CUNICULUS (RABBIT).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
CC EUTHERIA; LAGOMORPHA.
PN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-NEW ZEALAND WHITE; TISSUE-SPLEEN;
RX MEDLINE; 91225489.
RA YOSHIMURA T., YUHKI N.;
RL J. IMMUNOL. 146:3483-3488(1991).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS.
CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL; M57440; G165470; -.
DR HSP; P13500; IMCA.
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
FT SIGNAL 1 23
FT CHAIN 24 125
FT MOD_RES 24 24
FT DISULFID 34 59
FT DISULFID 35 75
FT CARBOHYD 40 40
FT CARBOHYD 55 55
FT CARBOHYD 112 112
SQ SEQUENCE 125 AA; 13776 MW; FBAC9D27 CRC32;

Query Match 93.8%; Score 91; DB 1; Length 125;
Best Local Similarity 100.0%; Pred. No. 9.47e-09;
Matches 11; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 74 ICADPKKQWQ 84
2 ICADPKKQWQ 12

QY

RESULT 8
ID EOTA_RAT STANDARD; PRT; 97 AA.
AC P97545; C08780;
DT 15-JUL-1998 (REL. 36, CREATED)
DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
OS RATTUS NORVEGICUS (RAT).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
CC EUTHERIA; RODENTIA.
PN [1]
RP SEQUENCE FROM N.A.
RA WILLIAMS C.M., NEWTON D.J., WILSON S.A., COLEMAN J.C.,
RA FLANGANAN B.F.;
RN SUBMITTED (DEC-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE-LUNG;
RA ISHII Y.;
RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.

CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
CC DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
CC FEATURE OF ALLERGIC INFLAMMATORY REACTIONS (BY SIMILARITY).
CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL; Y08358; E274141; -.
DR EMBL; U96637; G2098785; -.
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
KW INFLAMMATORY RESPONSE.
FT SIGNAL 1 23
FT CHAIN 24 97
FT DISULFID 32 57
FT DISULFID 33 73
FT CARBOHYD 94 94
FT CONFLICT 3 3
SQ SEQUENCE 97 AA; 10851 MW; 05B4ED45 CRC32;

Query Match 92.8%; Score 90; DB 1; Length 97;
Best Local Similarity 91.7%; Pred. No. 1.70e-08;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 71 EICADPKKQWQ 82
1 EICADPKKQWQ 12

QY

RESULT 9
ID EOTA_MOUSE STANDARD; PRT; 97 AA.
AC P48298;
DT 01-FEB-1996 (REL. 33, CREATED)
DT 01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
GN SCY11.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
CC EUTHERIA; RODENTIA.
PN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-LUNG;
RX MEDLINE; 96004658.
RA ROTHENBERG M.E., LUSTER A.D., LEDER P.;
RL PROC. NATL. ACAD. SCI. U.S.A. 92:8960-8964(1995).
RN [2]
RP SEQUENCE FROM N.A.
RC STRAIN-C57BL/6J; TISSUE-LUNG;
RX MEDLINE; 96158746.
RA GONZALO J.-A., JIA G.-O., AGUIRRE V., FRIEND D., COYLE A.J.,
RA JENKINS N.A., LIN G.-S., KATZ H., LICHTMAN A., COPELAND N.G., KOPF M.,
RA GUTIERREZ-RAMOS J.-C.;
RL IMMUNITY 4:1-14(1996).
CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
CC DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS (A PROMINENT
CC FEATURE OF ALLERGIC INFLAMMATORY REACTIONS), BUT NOT
CC LYMPHOCYTES, MACROPHAGES OR NEUTROPHILS.
CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
CC -1- TISSUE SPECIFICITY: EXPRESSED CONSTITUTIVELY IN THE THYMUS,
CC EXPRESSION INDUCIBLE IN THE LUNG (TYPE I ALVEOLAR EPITHELIAL
CC CELLS), INTESTINE, HEART, SPLEEN, KIDNEY.
CC -1- INDUCTION: BY INTERFERON-GAMMA AND LIPOLYSACCHARIDE (LPS).
CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL; U26426; G995911; -.
DR EMBL; U40672; G111937; -.
DR MGD; MGI:103576; SCY11.
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
KW INFLAMMATORY RESPONSE.
FT SIGNAL 1 23


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RP SEQUENCE FROM N.A.
RC TISSUE=LUNG;
RA MEDLINE: 97445071.
RA HEIN H., SCHLEUTER C., KULKE R., CHRISTOPHERS E., SCHROEDER J.M.,
RA BARTELS J.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 237:537-542(1997).
CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
CC DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
CC FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.
CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
CC -1- INDUCTION: BY TNF-ALPHA, IL-1-ALPHA AND INTERFERON GAMMA.
CC -1- SIMILARITY: BELONGS TO THE INTERCINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: U46573; G1280141; -.
DR EMBL: U34780; G1185440; -.
DR EMBL: D49372; G1552241; -.
DR EMBL: 269291; E221070; -.
DR EMBL: 275668; E251275; -.
DR EMBL: 275669; E251258; -.
DR EMBL: U46572; G2088509; -.
DR EMBL: 292709; E329504; -.
DR MIM: 601156; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KM EOSINOPHIL CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
KM INFLAMMATORY RESPONSE; POLYMORPHISM.
FT SIGNAL 1 23
FT CHAIN 24 97
FT DISULFID 32 57
FT DISULFID 33 73
FT VARIANT 7 7
FT VARIANT 23 7
FT VARIANT 23 23
FT VARIANT 51 51
FT VARIANT 79 79
FT VARIANT 79 79
SQ SEQUENCE 97 AA; 10732 MW; 6C0F3D98 CRC32;

Query Match
Best Local Similarity 83.3%; Pred. No. 3.05e-08;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 71 DICADPKKKWQ 82
UY 1 EICADPKKKWQ 12

RESULT 12
ID MCP2_PIG STANDARD: PRT; 99 AA.
AC P49873:
DT 01-OCT-1996 (REL. 34, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
DE CHEMOATTRACTANT PROTEIN 2).
GN SCYA8 OR MCP2
OS SUS SCROFA (PIG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 95091716.
RA HOSANG K.K., KNOKE I.I., KLAUDINY J.J., WEMPE F.F., WUTTKE W.W.,
RA SCHEIT K.K.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 205:148-153(1994).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN
CC CAN BIND HEPARIN.
CC -1- SUBUNIT: MONOMER OR HOMODIMER. IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: 248480; G683719; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KM CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23
FT CHAIN 24 99
FT SEQUENCE FROM N.A. MONOCYTE CHEMOTACTIC PROTEIN 2.

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FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY
FT DISULFID 34 59 SIMILARITY).
FT DISULFID 35 75 BY SIMILARITY.
SQ SEQUENCE 99 AA; 10903 MW; B7620BCF CRC32;

Query Match
Best Local Similarity 83.3%; Pred. No. 5.44e-08;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 73 EVCADPQKKWQ 84
UY 1 EICADPKKKWQ 12

RESULT 13
ID MCP1_CAVPO STANDARD: PRT; 120 AA.
AC Q08782:
DT 01-NOV-1995 (REL. 32, CREATED)
DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
DE CHEMOATTRACTANT PROTEIN-1).
GN SCYA2 OR MCP1
OS CAVIA PORCELLUS (GUINEA PIG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RX STRAIN-2; TISSUE=SPLEEN;
RX MEDLINE: 91267104.
RA YOSHIMURA T.;
RL J. IMMUNOL. 150:5025-5032(1993).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS.
CC -1- SUBUNIT: MONOMER OR HOMODIMER. IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: L04985; G349821; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KM CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
FT SIGNAL 1 23
FT CHAIN 24 120
FT MOD_RES 24 24 MONOCYTE CHEMOTACTIC PROTEIN 1.
FT DISULFID 33 57 BY SIMILARITY.
FT DISULFID 34 73 BY SIMILARITY.
FT CARBOHYD 97 97 POTENTIAL.
SQ SEQUENCE 120 AA; 13741 MW; 22FAD257 CRC32;

Query Match
Best Local Similarity 83.3%; Pred. No. 5.44e-08;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 71 EVCADPQKKWQ 82
UY 1 EICADPKKKWQ 12

RESULT 14
ID MCP5_MOUSE STANDARD: PRT; 104 AA.
AC Q62401:
DT 01-NOV-1997 (REL. 35, CREATED)
DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 5 PRECURSOR (MCP-5) (MCP-1 RELATED
DE CHEMOKINE).
GN SCYA12 OR MCP5.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.

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RX MEDLINE: 97079149.
RA JIA G.-Q., GONZALES J.A., LLOYD C., KREMER L., LU L., MARTINEZ A.C.,
RA WENSHIL B.K., GUTIERREZ-RAJOS J.C.;
RL J. EXP. MED. 184:1939-1951(1996).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 97149438.
RA SARAFI M.N., GARCIA-ZEPEDA E.A., MACLEAN J.A., CHARO I.F.,
RA LUSTER A.D.;
RL J. EXP. MED. 185:99-109(1997).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS EOSINOPHILS, MONOCYTES,
CC AND LYMPHOCYTES BUT NOT NEUTROPHILS. POTENT MONOCYTE ACTIVE
CC CHEMOKINE THAT SIGNALS THROUGH CCR2. INVOLVED IN ALLERGIC
CC INFLAMMATION AND THE HOST RESPONSE TO PATHOGENS AND MAY PLAY A
CC PIOTOTAL ROLE DURING EARLY STAGES OF ALLERGIC LUNG INFLAMMATION.
CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
CC -1- TISSUE SPECIFICITY: PREDOMINANTLY EXPRESSED IN THE LYMPH NODES AND
CC THYMUS. ALSO FOUND IN THE SALIVARY GLANDS CONTAINING LYMPH NODES,
CC BREAST, HEART, LUNG, BRAIN, SMALL INTESTINE, KIDNEY AND COLON.
CC -1- INDUCTION: BY IFN-GAMMA AND LIPOPOLYSACCHARIDE (LPS).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: U50712; G1477582; -;
DR EMBL: U66670; G1881583; -;
DR MGD: MGI:108224; SCYAL2.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
FT SIGNAL 1 22 BY SIMILARITY.
FT CHAIN 23 104 MONOCYTE CHEMOTACTIC PROTEIN 5.
FT DISULFID 33 58 BY SIMILARITY.
FT DISULFID 34 74 BY SIMILARITY.
SQ SEQUENCE 104 AA; 11659 MW; 08FA6C35 CRC32;

Query Match 88.7%; Score 86; DB 1; Length 104;
Best Local Similarity 90.9%; Pred. No. 1.73e-07;
Matches 10; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 72 EICADPKKRW 82
Qy 1 EICADPKKRW 11
|||||
1 EICADPKKRW 11

RESULT 15
ID EOTA_CAVPO STANDARD; PRT; 96 AA.
AC P80325;
DT 01-JUN-1994 (REL. 29, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
GN SCYAL1.
OS CAVIA PORCELLUS (GUINEA PIG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RX TISSUE-LUNG;
RX MEDLINE: 95173589.
RA ROHREBERG M.E., LUSTER A.D., LILLY C.M., DRAZEN J.M., LEDER P.;
RL J. EXP. MED. 181:1211-1216(1995).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 95091818.
RA JOSE P.J., ADDOCK I.M., GRIFFITHS-JOHNSON D.A., BERKMAN N.,
RA WELLS T.C., WILLIAMS T.J., POWER C.A.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 205:788-794(1994).
RN [3]
RP SEQUENCE OF 24-96.
RC STRAIN-HARTLEY; TISSUE-LUNG;
RX MEDLINE: 94157409.
RA JOSE P.J., GRIFFITHS-JOHNSON D.A., COLLINS P.D., WALSH D.T.,
RA MOOBERL R., TOTTY N.F., TRUONG O., HSUAN J.J., WILLIAMS T.J.;
RL J. EXP. MED. 179:881-887(1994).
CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN

CC DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
CC FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.
CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
CC -1- TISSUE SPECIFICITY: LUNG.
CC -1- PM: O-GLYCOSYLATED (PROBABLE).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: U18941; G687656; -;
DR EMBL: X77603; G602552; -;
DR HSSP: P13500; IMCA.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
KW INFLAMMATORY RESPONSE.
FT SIGNAL 1 23
FT CHAIN 24 96 EOTAXIN.
FT DISULFID 31 56 BY SIMILARITY.
FT DISULFID 32 72 BY SIMILARITY.
FT CARBOHYD 93 93 POTENTIAL.
FT CONFLICT 88 88 D -> G (IN REF. 2).
SQ SEQUENCE 96 AA; 10753 MW; DD28C7E5 CRC32;

Query Match 86.6%; Score 84; DB 1; Length 96;
Best Local Similarity 90.9%; Pred. No. 5.42e-07;
Matches 10; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 71 ICADPKKRWQ 81
Qy 2 ICADPKKRWQ 12
|||||
2 ICADPKKRWQ 12

RESULT 16
ID IL8_CANFA STANDARD; PRT; 101 AA.
AC P41324;
DT 01-FEB-1995 (REL. 31, CREATED)
DT 01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8).
GN IL8.
OS CANIS FAMILIARIS (DOG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; CARNIVORA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 94010328.
RA ISHIKAWA J., SUZUKI S., HOTTA K., HIROTA Y., MIZUNO S., SUZUKI K.;
RL GENE 131:305-306(1993).
RN [2]
RP SEQUENCE FROM N.A.
RX TISSUE-LYMPH NODE;
RX MEDLINE: 95127913.
RA MATSUMOTO Y., MOHAMED A., ONODERA T., KATO H., OHASHI T.,
RA GOITSUDA R., TSUJIMOTO H., HASEGAWA A., FURUSAWA S., YOSHIMURA K.,
RA ISHIKAWA J., HOTTA K., SUZUKI K., HIROTA Y.;
RL CYTOKINE 6:455-461(1994).
RN [3]
RP SEQUENCE FROM N.A.
RC STRAIN-MONGREL; TISSUE-JUGULAR VEIN;
RX MEDLINE: 95114148.
RA KURIELKA G.L., SMITH W.C., LAROSA G.J., MANNING A.M.,
RA MENDOZA L.H., DALY T.J., HUGHES B.J., YOURER K.A., HAWKINS H.K.,
RA MICHAEL L.H., ROT A., ENTMAN M.L.;
RL J. CLIN. INVEST. 95:89-103(1994).
CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
CC BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
CC RESPONSE TO AN INFLAMMATORY STIMULUS.
CC -1- SUBUNIT: HOMODIMER.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
CC C-X-C) (CHEMOKINE CX).
DR EMBL: D28772; G517100; -;
DR EMBL: D14285; G475152; -;
DR EMBL: U10308; G607814; -;
DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.

KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 22 BY SIMILARITY.
 FT CHAIN 23 101 INTERLEUKIN-8.
 FT DISULFID 34 61 BY SIMILARITY.
 FT DISULFID 36 77 BY SIMILARITY.
 SQ SEQUENCE 101 AA; 11280 MW; 7C49D62D CRC32;
 Query Match 86.6%; Score 84; DB 1; Length 101;
 Best Local Similarity 75.0%; Pred. No. 5,426-07;
 Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
 Db 75 EVCLDPKKEKWQ 86
 1 EICADPKKWKWQ 12
 RESULT 17
 ID IL8 SHEEP STANDARD; PRT: 101 AA.
 AC P36925;
 DT 01-JUN-1994 (REL. 29, CREATED)
 DT 01-JUN-1994 (REL. 29, LAST SEQUENCE UPDATE)
 DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
 DE INTERLEUKIN-8 PRECURSOR (IL-8).
 GN IL8.
 OS OVIS ARIES (SHEEP).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 95121931.
 RA LEGASTELOS I., GREENLAND T., ARNAUD P., MORNEJ J.F., CORDIER G.;
 RL GENE 150:367-369(1994).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 95137691.
 RA SHOW H.F., YOSHIMURA T., WOOD P.R., COLDITZ I.G.;
 RL IMMUNOL. CELL BIOL. 72:398-405(1994).
 CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
 BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
 NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
 CC RESPONSE TO AN INFLAMMATORY STIMULUS.
 CC -1- SUBUNIT: HOMODIMER.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 CC C-X-C) (CHEMOKINE CXC).
 DR EMBL: X78306; G463254; -.
 DR EMBL: S74436; G786591; -.
 DR PIR: S42496; S42496.
 DR HSSP: P10145; 31L8.
 DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
 KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 22 BY SIMILARITY.
 FT CHAIN 23 101 INTERLEUKIN-8.
 FT DISULFID 34 61 BY SIMILARITY.
 FT DISULFID 36 77 BY SIMILARITY.
 SQ SEQUENCE 101 AA; 11292 MW; 5A574527 CRC32;
 Query Match 86.6%; Score 84; DB 1; Length 101;
 Best Local Similarity 75.0%; Pred. No. 5,426-07;
 Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
 Db 75 EVCLDPKKEKWQ 86
 1 EICADPKKWKWQ 12
 RESULT 18
 ID IL8 PIG STANDARD; PRT: 103 AA.
 AC P26894; P22951;
 DT 01-AUG-1991 (REL. 19, CREATED)
 DT 01-AUG-1992 (REL. 23, LAST SEQUENCE UPDATE)
 DT 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
 DE INTERLEUKIN-8 PRECURSOR (IL-8) (ALVEOLAR MACROPHAGE CHEMOTACTIC FACTOR
 DE I) (AMCF-1).

GN IL8.
 OS SCS SCROFA (PIG).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 94103307.
 RA LIN G., PEARSON A.E., SCAMURRA R.W., ZHOU Y., BAARSCH M.J.,
 RA WEISS D.J., MURTAUGH M.P.;
 RL J. BIOL. CHEM. 269:77-85(1994).
 RN [2]
 RP SEQUENCE FROM N.A.
 RA SANJANMALA M.;
 RL SUBMITTED (JUL-1991) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [3]
 RP SEQUENCE FROM N.A., AND SEQUENCE OF 26-45.
 RC TISSUE-LUNG;
 RX MEDLINE: 93041741.
 RA GOODMAN R.B., FOSTER D.C., MATHEWS S.L., OSBORN S.G., KUIJPER J.L.,
 RA FORSTROM J.W., MARTIN T.R.;
 RL BIOCHEMISTRY 31:10483-10490(1992).
 RN [4]
 RP REVISION TO 23.
 RA GOODMAN R.B.;
 RL SUBMITTED (MAR-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [5]
 RP SEQUENCE OF 26-45.
 RC STRAIN-YORKSHIRE;
 RX MEDLINE: 91217086.
 RA GOODMAN R.B., FORSTROM J.W., OSBORN S.G., CHI E.Y., MARTIN T.R.;
 RL J. BIOL. CHEM. 266:845-8463(1991).
 CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
 BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
 CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
 CC RESPONSE TO AN INFLAMMATORY STIMULUS.
 CC -1- SUBUNIT: HOMODIMER.
 CC -1- TISSUE SPECIFICITY: ALVEOLAR MACROPHAGES.
 CC -1- INDUCTION: BY LIPOPOLYSACCHARIDE.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 CC C-X-C) (CHEMOKINE CXC).
 DR EMBL: M86923; G164521; -.
 DR EMBL: X61151; G516197; -.
 DR EMBL: M99367; G1235612; -.
 DR PIR: A44253; A44253.
 DR PIR: A39819; A39819.
 DR HSSP: P10145; 31L8.
 DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
 KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 25
 FT CHAIN 26 103 INTERLEUKIN-8.
 FT DISULFID 34 61 BY SIMILARITY.
 FT DISULFID 36 77 BY SIMILARITY.
 FT DISULFID 33 34 RC -> CR (IN REF. 5).
 FT CONFLICT 87 87 K -> KR (IN REF. 2).
 SQ SEQUENCE 103 AA; 11633 MW; A012D59D CRC32;
 Query Match 86.6%; Score 84; DB 1; Length 103;
 Best Local Similarity 75.0%; Pred. No. 5,426-07;
 Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
 Db 75 EVCLDPKKEKWQ 86
 1 EICADPKKWKWQ 12
 RESULT 19
 ID M1A RAT STANDARD; PRT: 92 AA.
 AC P50229;
 DT 01-OCT-1996 (REL. 34, CREATED)
 DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
 DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
 DE MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR (MIP-1-ALPHA).
 DE SCTA3 OR M1PA.

OS RATTUS NORVEGICUS (RAT).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; RODENTIA.
 RN (1)
 RP SEQUENCE FROM N.A.
 RC STRAIN-CD-1; TISSUE=LUNG;
 RX MEDLINE: 95298037.
 RA SHI M.M., GODLESKI J.J., PAULAKIS J.D.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 211:289-295(1995).
 RN (2)
 RP SEQUENCE FROM N.A.
 RC STRAIN-LONG EVANS; TISSUE=LUNG;
 RX MEDLINE: 95238980.
 RA SHANLEY T.P., SCHMAL H., FRIEDL H.P., JONES M.L., WARD P.A.;
 RL J. IMMUNOL. 154:4793-4802(1995).
 RN (3)
 RP SEQUENCE OF 24-57.
 RC STRAIN-WISTAR;
 RX MEDLINE: 96183056.
 RA NAKAGAMA H., SHIOTA S., TAKANO K., SHIBATA F., KATO H.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 220:945-948(1996).
 CC -1- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.
 CC HAS CHEMOTACTIC ACTIVITY FOR MONOCYTES, NEUTROPHILS, EOSINOPHILS,
 CC BASOPHILS, AND LYMPHOCYTES. REQUIRED FOR LUNG TNF-ALPHA
 CC PRODUCTION, NEUTROPHIL RECRUITMENT AND SUBSEQUENT LUNG INJURY AND
 CC MAY FUNCTION AS AN AUTOCRINE MEDIATOR FOR THE MACROPHAGE
 CC PRODUCTION OF TNF-ALPHA WHICH IN TURN UP-REGULATES VASCULAR
 CC ADHESION MOLECULES REQUIRED FOR NEUTROPHIL INFLOX. THIS PROTEIN
 CC BINDS HEPARIN.
 CC -1- INDUCTION: BY LIPOPOLYSACCHARIDE (LPS).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL: U22414; G790633; -.
 DR EMBL: U06435; G439150; -.
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL; HEPARIN-BINDING.
 RN (1)
 RP SIGNAL 1 23
 FT CHAIN 24 92 MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA.
 FT DISULFID 34 57 BY SIMILARITY.
 FT DISULFID 35 73 BY SIMILARITY.
 FT CONFLICT 6 6 A -> T (IN REF. 2).
 FT CONFLICT 57 57 C -> W (IN REF. 2 AND 3).
 SQ SEQUENCE 92 AA; 10335 MW; F48CF89F CRC32;
 SO
 Query Match 85.58; Score 83; DB 1; Length 92;
 Best Local Similarity 75.08; Pred. No. 9.38e-07;
 Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
 Db 71 QICADPKETWVQ 82
 QY 1 EICADPKRKWVQ 12
 RESULT 20
 ID MCPB_BOVIN STANDARD; PRT; 74 AA.
 AC P80343;
 DT 01-FEB-1995 (REL. 31, CREATED)
 DT 01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1B (MCP-1B) (FRAGMENT).
 OS BOS TAURUS (BOVINE).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; ARTIODACTYLA.
 RN (1)
 RP SEQUENCE.
 RC TISSUE-KIDNEY;
 RX MEDLINE: 95034774.
 RA PROOST P., WUYTS A., LENAERTS J.-P., VAN DAMME J.;
 RL BIOCHEMISTRY 33:13406-13412(1994).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
 CC NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR ACTIVITY. ALSO INDUCES
 CC THE RELEASE OF GELATINASE B. THIS PROTEIN CAN BIND HEPARIN.
 CC -1- PTM: THE N-TERMINAL IS BLOCKED.

CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; HEPARIN-BINDING.
 FT NON_TER 1 34
 FT DISULFID 9 34 BY SIMILARITY.
 FT DISULFID 10 50 BY SIMILARITY.
 SQ SEQUENCE 74 AA; 8360 MW; 66172F08 CRC32;
 Db 48 EICADPKRKWVQ 59
 QY 1 EICADPKRKWVQ 12
 Query Match 84.58; Score 82; DB 1; Length 74;
 Best Local Similarity 75.08; Pred. No. 1.69e-06;
 Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;
 RESULT 21
 ID MCP2_HUMAN STANDARD; PRT; 99 AA.
 AC P80075; P78388;
 DT 01-DEC-1992 (REL. 24, CREATED)
 DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
 DE CHEMOTRACTANT PROTEIN 2) (HC14).
 GN SCY6 OR SCYAL0 OR MCP2.
 OS HOMO SAPIENS (HUMAN).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN (1)
 RP SEQUENCE FROM N.A., AND VARIANT GLN-69.
 RX MEDLINE: 97237052.
 RA VAN COLLEIE E., FITTEN P., NOMIYAMA H., SAKARI Y., MIURA R., YOSHIE O.,
 RA VAN DAMME J., OPDENAKKER G.;
 RL GENOMICS 40:323-331(1997).
 RN (2)
 RP SEQUENCE FROM N.A., AND VARIANT GLN-69.
 RX MEDLINE: 97224420.
 RA VAN COLLEIE E., FROYEN F., NOMIYAMA H., MIURA R., FITTEN P.,
 RA VAN AELST I., VAN DAMME J., OPDENAKKER G.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 231:726-730(1997).
 RN (3)
 RP SEQUENCE OF 23-99 FROM N.A.
 RX MEDLINE: 91207938.
 RA CHANG H.C., HSU F., FREEMAN G.J., GRIFFIN J.D., REINHERTZ E.L.;
 RL INT. IMMUNOL. 1:388-399(1989).
 RN (4)
 RP SEQUENCE OF 26-99.
 RX TISSUE-OSTEOSARCOMA;
 RX MEDLINE: 92308855.
 RA VAN DAMME J., PROOST P., LENAERTS J.-P., OPDENAKKER G.;
 RL J. EXP. MED. 176:59-65(1992).
 RN (5)
 RP SUBUNIT.
 RX MEDLINE: 97053697.
 RA KIM K.-S., RADARATHNAM K., CLARK-LEWIS I., SYKES B.D.;
 RL FEBS LETT. 395:277-282(1996).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCYTES,
 CC BASOPHILS AND EOSINOPHILS. MAY PLAY A ROLE IN NEOPLASIA AND
 CC INFLAMMATORY HOST RESPONSES. THIS PROTEIN CAN BIND HEPARIN.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM.
 CC -1- TISSUE SPECIFICITY: HIGHEST EXPRESSION FOUND IN THE SMALL
 CC INTESTINE AND PERIPHERAL BLOOD CELLS. INTERMEDIATE LEVELS SEEN IN
 CC THE HEART, PLACENTA, LUNG, SKELETAL MUSCLE, THYMUS, COLON, OVARY,
 CC SPINAL CORD AND PANCREAS. LOW LEVELS SEEN IN THE BRAIN, LIVER,
 CC SPLEEN AND PROSTATE.
 CC -1- INDUCTION: BY INTERFERON GAMMA, MITOGENS AND INTERLEUKIN-1.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL: X99886; E279930; ALT_INIT.
 DR EMBL: Y10802; E294088; -.


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DR HSP: P13500: IMCA.
DR MIM: 602283: -.
KW PROSITE: PS00472: SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE;
KW POLYMORPHISM.
FT SIGNAL 1 23 PROBABLE.
FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 2.
FT MOD.RES 24 24 PYRROLIDONE CARBOXYLIC ACID.
FT DISULFID 34 59 BY SIMILARITY.
FT DISULFID 35 75 BY SIMILARITY.
FT VARIANT 69 69 K->Q.
SQ SEQUENCE 99 AA: 11246 MW: 5DD05C20 CRC32:

Query Match
Best Local Similarity 66.7%; Score 82; DB 1; Length 99;
Matches 8; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

Db 73 EVCADPKRKWVR 84
1 EICADPKRKWQ 12

RESULT 22
ID MIP4_HUMAN STANDARD: PRT: 89 AA.
AC P55774:
DT 01-NOV-1997 (REL. 35, CREATED)
DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MACROPHAGE INFLAMMATORY PROTEIN 4 PRECURSOR (MIP-4) (PULMONARY AND
DE ACTIVATION-REGULATED CHEMOKINE) (CC CHEMOKINE PARC) (ALTERNATIVE
DE ACTIVATED MACROPHAGE ASSOCIATED CC CHEMOKINE 1) (MAMC-1).
GN SCRA18 OR MIP4.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A.
RA LI H., RUBEN S.;
RL PATENT NUMBER US5504003.
RN [2]
RP SEQUENCE FROM N.A., AND PARTIAL SEQUENCE.
RC TISSUE-AORTA, AND LUNG;
RX MEDLINE: 97376836.
RA HIESHIMA K., IMAI T., BABA M., SHOUDAI K., ISHIZUKA K.,
RA NAKAGAWA T., TSUBOTA J., TAKEYA M., SAKARI Y., TAKATSUKI K.,
RA MIURA R., OPDENAKKER G., VAN DAMME J., YOSHIE O., NOMIYAMA H.;
RL J. IMMUNOL. 159:1140-1149(1997).
RN [3]
RP SEQUENCE FROM N.A.
RA KODELJA V., MUELLER C., POLITZ O., HAKIY N., ORFANOS C.E., GOERDT S.;
RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [4]
RP DISCUSSION OF SEQUENCE.
RX MEDLINE: 97275308.
CC CC
CC -1- INDUCTION: BY LIPOPOLYSACCHARIDE (LPS).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: AB000221: D1022520: -.
DR EMBL: Y13710: E321838: -.
DR PROSITE: PS00472: SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 20
FT CHAIN 21 89 MACROPHAGE INFLAMMATORY PROTEIN 4.
FT DISULFID 30 54 BY SIMILARITY.
FT DISULFID 31 70 BY SIMILARITY.

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SQ SEQUENCE 89 AA: 9849 MW: 052AA3DC CRC32:

Query Match
Best Local Similarity 75.0%; Score 81; DB 1; Length 89;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 68 QICADPNKRWQ 79
1 EICADPKRKWQ 12

RESULT 23
ID IL8_BOVIN STANDARD: PRT: 101 AA.
AC F79253:
DT 01-NOV-1997 (REL. 35, CREATED)
DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8).
GN IL8.
OS BOS TAURUS (BOVINE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 96304552.
RA MORSEY M.A., POPOWYCH Y., KOMALSKI J., GERLACH G., GODSON D.,
RA CAMPOS M., BABIUK L.A.;
RL MICROB. PATHOG. 20:203-212(1996).
CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
CC BASOPHILS, AND T-CELLS. BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
CC RESPONSE TO AN INFLAMMATORY STIMULUS (BY SIMILARITY).
CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
CC C-X-C) (CHEMOKINE CXC).
DR EMBL: S82598: G169354: -.
DR PROSITE: PS00471: SMALL_CYTOKINES_CXC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 22
FT CHAIN 23 101 BY SIMILARITY.
FT DISULFID 34 61 INTERLEUKIN-8.
FT DISULFID 36 77 BY SIMILARITY.
SQ SEQUENCE 101 AA: 11291 MW: 0E39C526 CRC32:

Query Match
Best Local Similarity 66.7%; Score 81; DB 1; Length 101;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 75 EVCADPKRKWQ 86
1 EICADPKRKWQ 12

RESULT 24
ID IL8_RABBIT STANDARD: PRT: 101 AA.
AC P19874:
DT 01-FEB-1991 (REL. 17, CREATED)
DT 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8) (NEUTROPHIL ATTRACTANT/ACTIVATION
DE PROTEIN-1) (NAP-1) (PERMEABILITY FACTOR 1) (RPF1).
GN IL8.
OS ORYCTOLAGUS CUNICULUS (RABBIT).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; LAGOMORPHA.
RN [1]
RP SEQUENCE FROM N.A.
RX STRAIN-NEW ZEALAND WHITE; TISSUE-SPLEEN;
RX MEDLINE: 91225489.
RA YOSHIMURA T., YUKHI N.;
RL J. IMMUNOL. 146:3483-3488(1991).
RN [2]
RP SEQUENCE OF 23-53.

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RC STRAIN-NEW ZEALAND WHITE; TISSUE-PERITONEAL CAVITY;
 RX MEDLINE: 91058518.
 RA BEUBEN B.C., COLLINS P.D., JOSE P.J., TOTTI N.F., HSUAN J.,
 RL BIOCHEM. J. 271:797-801(1990).
 CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
 CC BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
 CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
 CC RESPONSE TO AN INFLAMMATORY STIMULUS.
 CC -1- SUBUNIT: HOMODIMER.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 CC C-X-C) (CHEMOKINE CXCL).
 DR EMBL: M57439; G165553; -.
 DR PIR: S13052; S13052.
 DR HSP: P10145; 3118.
 DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
 KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 22
 FT CHAIN 23 101 INTERLEUKIN-8.
 FT DISULFID 34 61 BY SIMILARITY.
 FT DISULFID 36 77 BY SIMILARITY.
 FT CONFLICT 50 50 K -> I (IN REF. 2).
 SQ SEQUENCE 101 AA; 11402 MW; CB32CC30 CRC32;
 Query Match 83.5%; Score 81; DB 1; Length 101;
 Best Local Similarity 75.0%; Pred. No. 2.96e-06;
 Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
 Db 75 ELCADPKKRWQ 86
 1 EICADPKKRWQ 12
 QY 1 EICADPKKRWQ 12
 RESULT 25
 ID MCPI_MOUSE STANDARD; PRT; 148 AA.
 AC P10148;
 DT 01-MAR-1989 (REL. 10, CREATED)
 DT 01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (PLATELET-DERIVED
 DE GROWTH FACTOR-INDUCIBLE PROTEIN JE).
 GN SCY2 OR MCP1 OR JE.
 OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 89093129.
 RA KAWAHARA R.S., DEUEL T.F.;
 RL J. BIOL. CHEM. 264:679-682(1989).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 88234501.
 RA ROLLINS B.J., MORRISON E.D., STILES C.D.;
 RL PROC. NATL. ACAD. SCI. U.S.A. 85:3738-3742(1988).
 RN [3]
 RP SEQUENCE OF 26-42.
 RX MEDLINE: 91293127.
 RA VAN DAMME J., DEOCK B., BERTINI R., CONINGS R., LEMERTS J.-P.,
 RA PUT W., ODEKARER G., MANTOVANI A.;
 RL EUR. J. BIOCHEM. 199:223-229(1991).
 RN [4]
 RP FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
 CC NEUTROPHILS.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER. IN EQUILIBRIUM (BY SIMILARITY).
 CC -1- INDUCTION: BY PLATELET-DERIVED GROWTH FACTOR.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL: J04467; G387169; -.
 DR EMBL: M19681; G387168; -.
 DR PIR: A30209; A30209.
 DR PIR: A30861; A30861.
 DR PIR: S16226; S16226.
 DR HSP: P13500; 1MCA.

DR MED: MGI:98259; SCY2.
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
 FT SIGNAL 1 23
 FT CHAIN 24 148 BY SIMILARITY.
 FT MOD_RES 24 24 MONOCYTE CHEMOTACTIC PROTEIN 1.
 FT DISULFID 34 59 PYROLIDONE CARBOXYLIC ACID (BY
 FT DISULFID 35 75 SIMILARITY).
 FT CARBOHYD 126 126 BY SIMILARITY.
 SQ SEQUENCE 148 AA; 16326 MW; B7572B8C CRC32;
 Query Match 82.5%; Score 80; DB 1; Length 148;
 Best Local Similarity 75.0%; Pred. No. 5.18e-06;
 Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;
 Db 73 EVCADPKKRWQ 84
 1 EICADPKKRWQ 12
 QY 1 EICADPKKRWQ 12
 RESULT 26
 ID M1A_MOUSE STANDARD; PRT; 92 AA.
 AC P10855; P14096;
 DT 01-JUL-1989 (REL. 11, CREATED)
 DT 01-APR-1990 (REL. 14, LAST SEQUENCE UPDATE)
 DT 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
 DE MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR (MIP-1-ALPHA) (TY-5)
 DE (SIS-ALPHA) (HEPARIN-BINDING CHEMOTAXIS PROTEIN) (L2625H).
 GN SCY3 OR MIP1A.
 OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 88258380.
 RA DAVATELIS G., TEKAMP-OLSON P., WOLPE S.D., HERMSEN K., LUEDKE C.,
 RA GALLEOS C., COIT D., MERRYWEATHER J., CERAMI A.;
 RL J. EXP. MED. 167:1939-1944(1988).
 RN [2]
 RP REVISIONS.
 RA DAVATELIS G., TEKAMP-OLSON P., WOLPE S.D., HERMSEN K., LUEDKE C.,
 RA GALLEOS C., COIT D., MERRYWEATHER J., CERAMI A.;
 RL J. EXP. MED. 170:2189-2189(1989).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 89093958.
 RA BROWN K.D., ZURAWSKI S.M., MOSMANN T.R., ZURAWSKI G.;
 RL J. IMMUNOL. 142:679-687(1989).
 RN [4]
 RP SEQUENCE FROM N.A.
 RX STRAIN-DBA/2J;
 RX MEDLINE: 91016858.
 RA GROVE M., LOWE S., GRAHAM G., PRAGNELL I., PLUMB M.;
 RL NUCLEIC ACIDS RES. 18:5561-5561(1990).
 RN [5]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 89184547.
 RA KWON B.S., WEISSMAN S.M.;
 RL PROC. NATL. ACAD. SCI. U.S.A. 86:1963-1967(1989).
 RN [6]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 91237116.
 RA WIDMER U., YANG Z., VAN DEVENTER S., MANOGUE K.R., SHERRY B.,
 RA CERAMI A.;
 RL J. IMMUNOL. 146:4031-4040(1991).
 RN [7]
 RP SEQUENCE OF 24-42.
 RX MEDLINE: 88154745.
 RA WOLPE S.D., DAVATELIS G., SHERRY B., BEUTLER B., HESSE D.G.,
 RA NGUYEN H.T., MOLDAMER L.L., NATHAN C.F., LOWRY S.F., CERAMI A.;
 RL J. EXP. MED. 167:570-581(1988).
 CC -1- FUNCTION: MONOKINE WITH INFLAMMATORY, PYROGENIC AND CHEMOKINETIC

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CC PROPERTIES. HAS A POTENT CHEMOTACTIC ACTIVITY FOR EOSINOPHILS.
CC BINDING TO A HIGH-AFFINITY RECEPTOR ACTIVATES CALCIUM RELEASE IN
CC NEUTROPHILS.
CC -1- TISSUE SPECIFICITY: EXPRESSED IN LUNG, SPLEEN, AND PANCREAS.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: M23447: G533241: -
DR EMBL: X53372: G287531: -
DR EMBL: J04491: G201525: -
DR EMBL: M73061: G199695: -
DR PIR: A27596: A27596.
DR PIR: A30552: A30552.
DR PIR: A32393: A32393.
DR PIR: S04533: S04533.
DR PIR: S11685: S11685.
DR HSSP: P13336: HUM.
DR MGD: MGI:98260: SCY3.
DR PROSITE: PS00472: SMALL_CYTOKINES_CC: 1.
DR CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 23
FT CHAIN 1 23
FT DISULFID 24 57 MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA.
FT DISULFID 35 73 BY SIMILARITY.
FT CONFLICT 22 22 F -> L (IN REF. 3).
FT CONFLICT 62 62 V -> A (IN REF. 3).
SQ SEQUENCE 92 AA: 10345 MW: 53979556 CRC32:

Query Match 78.4%; Score 76; DB 1; Length 92;
Best Local Similarity 66.7%; Pred. No. 4.73e-05;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 71 QICADSKETWQ 82
Oy 1 EICADPKOKWQ 12
:|||||: 111

RESULT 27
ID MCP1_RAT STANDARD: PRT: 148 AA.
AC P14844:
DT 01-APR-1990 (REL. 14, CREATED)
DT 01-APR-1990 (REL. 14, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (IMMEDIATE-EARLY
DE SERUM-RESPONSIVE JE PROTEIN).
GN SCY32 OR JE OR MCP1.
OS RATTUS NORVEGICUS (RAT).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-WAG/RID; TISSUE-KIDNEY;
RA MEDLINE: 90174947.
RA TIMMERS H.T.H.M., PRONK G.J., BOS J.L., VAN DER EB A.J.;
RL NUCLEIC ACIDS RES. 18:23-34(1990).
RN [2]
RP SEQUENCE FROM N.A.
RA MEDLINE: 91128376.
RA YOSHIMURA T., TAKEYA M., TAKAHASHI K.;
RA BIOCHEM. BIOPHYS. RES. COMMUN. 174:504-509(1991).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS.
CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: X17053: G55531: -
DR EMBL: M57441: G205334: -
DR PIR: JN0128: JN0128.
DR PIR: S07723: S07723.
DR HSSP: P13500: IMCA.
DR PROSITE: PS00472: SMALL_CYTOKINES_CC: 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
FT SIGNAL 1 23 BY SIMILARITY.

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FT CHAIN 24 148 MONOCYTE CHEMOTACTIC PROTEIN 1.
FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY
FT DISULFID 34 59 SIMILARITY).
FT DISULFID 35 75 BY SIMILARITY.
FT CARBOHYD 126 126 POTENTIAL.
SQ SEQUENCE 148 AA: 16460 MW: DB97F97C CRC32:

Query Match 78.4%; Score 76; DB 1; Length 148;
Best Local Similarity 75.0%; Pred. No. 4.73e-05;
Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 73 EICADPKKEWQ 84
Oy 1 EICADPKOKWQ 12
:|||||: 111

RESULT 28
ID SDF1_MOUSE STANDARD: PRT: 89 AA.
AC P40224:
DT 01-FEB-1995 (REL. 31, CREATED)
DT 01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE STROMAL CELL-DERIVED FACTOR 1 PRECURSOR (SDF-1) (PRE-B CELL GROWTH
DE STIMULATING FACTOR) (PBSF) (12-O-TETRADECANOYLPHORBOL 13-ACETATE
DE RERESSED PROTEIN 1) (TPAR1) (THIMIC LYMPHOMA CELL STIMULATING FACTOR)
DE (TISF).
GN SDF1.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 94181581.
RA NAGASAWA T., KIKUTANI H., KISHIMOTO T.;
RL PROC. NATL. ACAD. SCI. U.S.A. 91:2305-2309(1994).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 93342488.
RA TASHIRO K., TADA H., HEILKER R., SHIROZU M., NAKANO T., HONJO T.;
RL SCIENCE 261:600-603(1993).
RN [3]
RP SEQUENCE FROM N.A.
RX MEDLINE: 95073497.
RA JIANG W., ZHOU P., RAHN S.M., TOMITA N., JOHNSON M.D.,
RA WEINSTEIN I.B.;
RL EXP. CELL RES. 215:284-293(1994).
RN [4]
RP SEQUENCE FROM N.A.
RC STRAIN-AKR/J;
RA NOMURA M., NAKATA Y., UZAWA A., NOSE M., AKASHI M., SUZUKI G.;
RL SUBMITTED (DEC-1994) TO EMBL/GENBANK/DDB DATA BANKS.
CC -1- FUNCTION: CHEMOTACTIC ACTIVE ON T-LYMPHOCYTES, MONOCYTES, BUT
CC NOT NEUTROPHILS.
CC -1- FUNCTION: STIMULATES THE PROLIFERATION OF BONE MARROW-DERIVED B
CC PROGENITOR CELLS IN THE PRESENCE OF IL-7 AS WELL AS GROWTH OF THE
CC STROMAL CELL-DEPENDENT B-CELL CLONE DW34 CELLS.
CC -1- ALTERNATIVE PRODUCTS: TWO DIFFERENT FORMS (ALPHA AND BETA) ARE
CC PROBABLY GENERATED BY ALTERNATIVE SPLICING.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
CC C-X-C) (CHEMOKINE CXC).
DR EMBL: D21072: G468457: -
DR EMBL: L12029: G393180: -
DR EMBL: L12030: G393182: -
DR EMBL: S74318: G766394: -
DR EMBL: D43804: G1304174: -
DR EMBL: D43805: G1304175: -
DR PIR: A53497: A53497.
DR MGD: MGI:103556: SDF1.
DR PROSITE: PS00471: SMALL_CYTOKINES_CXC; FALSE NEG.
KW CYTOKINE; CHEMOTAXIS; GROWTH FACTOR; SIGNAL; ALTERNATIVE SPLICING.
FT SIGNAL 1 19 POTENTIAL.
FT CHAIN 20 89 STROMAL CELL-DERIVED FACTOR 1.

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FT DISULFID 30 55 BY SIMILARITY.
FT DISULFID 32 71 BY SIMILARITY.
FT SEQUENCE 89 89 K -> KRLKM (IN FORM BETA).
SQ SEQUENCE 89 AA: 10032 MM; 222C4E52 CRC32;

Query Match 77.3%; Score 75; DB 1; Length 89;
Best Local Similarity 58.3%; Pred. No. 8.17e-05;
Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 69 QVCIDPKLKWIO 80
   : : | | | | | :
OY 1 EICADPKOKWQ 12

RESULT 29
ID SDF1_HUMAN STANDARD: PRT; 93 AA.
AC P48061;
DT 01-FEB-1996 (REL. 33, CREATED)
DT 01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE STROMAL CELL-DERIVED FACTOR 1 PRECURSOR (SDF-1) (PRE-B CELL GROWTH
DE STIMULATING FACTOR) (PBSF).
GN SDF1.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
PN [1]
RP SEQUENCE FROM N.A.
RA SPOTILA L.D.;
RL SUBMITTED (OCT-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE; 96039262.
RA SHIROU M., NAKANO T., INAZAWA J., TASHIRO K., TADA H.,
RA SHIMOHARA T., HONJO T.;
RL GENOMICS 28:495-500(1995).
RN [3]
RP STRUCTURE BY NMR OF 22-88.
RX MEDLINE; 98046030.
RA CRUMP M.P., GONG J.H., LOETSCHER P., RAJARATHNAM K., AMARA A.,
RA ARANZANA-SEISDEOS F., VIRELIZIER J.L., BAGGIOLINI M., SYKES B.D.,
RA CLARK-LEWIS I.;
RL EMBIO J. 16:6996-7007(1997).
CC -1- FUNCTION: CHEMOTACTICANT ACTIVE ON T-LYMPHOCYTES, MONOCYTES, BUT
CC NOT NEUTROPHILS.
CC -1- ALTERNATIVE PRODUCTS: TWO DIFFERENT FORMS (ALPHA AND BETA) ARE
CC PROBABLY GENERATED BY ALTERNATIVE SPLICING.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
CC C-X-C) (CHEMOKINE CXCL).
DR EMBL; U16752; G571508; -.
DR EMBL; L36033; G1220366; -.
DR PDB; 1SDF; 28-JAN-98.
DR PDB; 2SDF; 17-JUN-98.
DR MIM; 600835; -.
DR PROSITE; PS00471; SMALL CYTOKINES_CXC; FALSE NEG.
KW CYTOKINE; CHEMOTAXIS; GROWTH FACTOR; SIGNAL; ALTERNATIVE SPLICING;
KW 3D-STRUCTURE.
FT SIGNAL 1 19 POTENTIAL.
FT CHAIN 20 93 STROMAL CELL-DERIVED FACTOR 1.
FT DISULFID 30 55
FT DISULFID 32 71
SQ SEQUENCE 93 AA: 10666 MM; 4B9911C7 CRC32;

Query Match 77.3%; Score 75; DB 1; Length 93;
Best Local Similarity 58.3%; Pred. No. 8.17e-05;
Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 69 QVCIDPKLKWIO 80
   : : | | | | | :
OY 1 EICADPKOKWQ 12

RESULT 30

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ID MCP3_MOUSE STANDARD: PRT; 97 AA.
AC Q03366;
DT 01-OCT-1993 (REL. 27, CREATED)
DT 01-OCT-1993 (REL. 27, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 3 PRECURSOR (MCP-3) (MONOCYTE
DE CHEMOTACTICANT PROTEIN 3) (INTERCRINE/CHEMOKINE MARCH) (FIC PROTEIN).
GN SCF7 OR MCP3 OR FIC.
OS MUS MUSCULUS (MURINE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
PN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-MAST CELLS;
RX MEDLINE; 93094785.
RA KULMBURG P.A., HUBER N.E., SCHEER B.J., WRANN M., BAUMBUKER T.;
RL J. EXP. MED. 176:1773-1778(1992).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE; 94271193.
RA THIRION S., NYS G., FITTEN P., MASURE S., VAN DAMME J.,
RA OPDENAKKER G.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 201:493-499(1994).
RN [3]
RP SEQUENCE FROM N.A.
RA WERNER F.;
RL SUBMITTED (JUN-1992) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [4]
RP SEQUENCE FROM N.A.
RX MEDLINE; 93204948.
RA HEINRICH J.N., RYSECK R.P., MACDONALD-BRAVO H., BRAVO R.;
RL MOL. CELL. BIOL. 13:2020-2030(1993).
RN [5]
RP SEQUENCE FROM N.A.
RX MEDLINE; 95081620.
RA JARMIN D.I., KULMBURG P.A., HUBER N.E., BAUMANN G.,
RA PRIESCHL-STRASSMAYR E.E., BAUMBUKER T.;
RL J. IMMUNOL. 153:5720-5729(1994).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND
CC EOSINOPHILS, BUT NOT NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR
CC ACTIVITY (BY SIMILARITY).
CC -1- SUBUNIT: MONOMER (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL; Z12297; G57938; -.
DR EMBL; L04694; G192926; -.
DR EMBL; S71251; G547089; -.
DR EMBL; X70058; G437873; -.
DR PIR; S30592; S30592.
DR HSP; P13500; IMCA.
DR MGD; MGI:99512; SCYA7.
DR PROSITE; PS00472; SMALL CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; HEPARIN-BINDING; GLYCOPROTEIN; SIGNAL;
KW INFLAMMATORY RESPONSE.
FT SIGNAL 1 23 POTENTIAL.
FT CHAIN 24 97 MONOCYTE CHEMOTACTIC PROTEIN 3.
FT MOD_RES 24 24 PYROGLUTAMIC CARBOXYLIC ACID (BY
FT SIMILARITY).
FT DISULFID 33 57 BY SIMILARITY.
FT DISULFID 34 73 BY SIMILARITY.
FT CARBOHYD 29 29 POTENTIAL.
FT CONFLICT 57 63 MISSING (IN REF. 5).
FT CONFLICT 74 74 A -> R (IN REF. 4).
SQ SEQUENCE 97 AA: 10999 MM; 682F557E CRC32;

Query Match 77.3%; Score 75; DB 1; Length 97;
Best Local Similarity 58.3%; Pred. No. 8.17e-05;
Matches 7; Conservative 4; Mismatches 1; Indels 0; Gaps 0;

Db 71 EVCAEAHOKWVE 82
   : : | | | | | :
OY 1 EICADPKOKWQ 12

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Thu Apr 1 08:26:05 1999

US-08-927-939-1.rsp

Page 15

Search completed: Thu Apr 1 07:22:34 1999
job time : 32 secs.

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W O R L D
(TM)

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Mpsrch_pp protein - protein database search, using Smith-Waterman algorithm

Run on: Thu Apr 1 07:22:51 1999; MasPar time 5.30 Seconds

Tabular output not generated. 125.027 Million cell updates/sec

Title: >US-08-927-939-1

Description: (1-12) from US08927939.pep

Sequence: 1 EICADPKQKVVQ 12

Scoring table: PAM 150
Gap 15

Searched: 180763 segs, 55169189 residues

Post-processing: Minimum Match 0%
Listing first 100 summaries

Database:

sptrembl8
1:sp:archaea 2:sp:bacteria 3:sp:fungi 4:sp:human
5:sp:invertebrate 6:sp:mammal 7:sp:mhc 8:sp:organelle
9:sp:phage 10:sp:plant 11:sp:rodent 12:sp:unclassified
13:sp:vertebrate 14:sp:virus

Statistics: Mean 25.510; Variance 35.092; scale 0.727

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result	No.	Score	Query Match	Length	DB	ID	Description	Pred. No.
1	81	83.5	395	11	035933		FRACTALKINE.	4.53e-05
2	81	83.5	395	11	035188		NEUROTACTIN.	4.53e-05
3	77	79.4	119	4	000175		MPF-2.	3.48e-04
4	76	78.4	97	11	089093		CC CHEMOKINE S738 PREC	5.76e-04
5	76	78.4	134	4	000585		BETA CHEMOKINE EXODUS-	5.76e-04
6	75	77.3	92	11	088430		CC CHEMOKINE ABCD-1.	9.50e-04
7	73	75.3	97	13	057411		LYMPHOTACTIN PRECURSOR	2.56e-03
8	72	74.2	80	4	014745		LD78 ALPHA BETA PRECUR	4.19e-03
9	72	74.2	95	4	099664		CHEMOKINE EXODUS.	4.19e-03
10	72	74.2	96	11	P97884		CC CHEMOKINE EXODUS.	4.19e-03
11	70	72.2	120	4	015467		IL-10-INDUCIBLE CHEMOK	1.11e-02
12	69	71.1	101	13	093238		CC CHEMOKINE-1.	1.79e-02
13	68	70.1	91	4	043646		RANTES PRECURSOR.	2.89e-02
14	68	70.1	97	6	062812		INTERLEUKIN-8 (FRAGMEN	2.89e-02
15	67	69.1	95	14	098158		ORF K6.	4.65e-02
16	67	69.1	109	11	055038		B LYMPHOCYTE CHEMOATTR	4.65e-02
17	67	69.1	397	4	P78423		CX3C CHEMOKINE PRECURS	4.65e-02
18	66	68.0	93	4	000626		MACROPHAGE-DERIVED CHE	7.45e-02
19	66	68.0	133	11	009006		BETA CHEMOKINE EXODUS	7.45e-02
20	66	68.0	133	11	009002		SMALL INDUCIBLE CYTOKI	7.45e-02

21	64	66.0	760	3	029126		CHITIN SYNTHETASE I.	1.89e-01
22	60	61.9	109	4	043927		CXC CHEMOKINE PRECURSO	1.16e+00
23	59	60.8	187	2	083516		HYPOTHETICAL 21.4 KD P	1.80e+00
24	59	60.8	203	14	067634		ECO Q PROTEIN (FRAGMEN	1.80e+00
25	59	60.8	399	14	068409		ORF UL154.	1.80e+00
26	58	59.8	982	5	093290		HYPOTHETICAL PROTEIN C	2.79e+00
27	58	59.8	1053	2	084834		RIBONUCLEOSIDE REDUCTA	2.79e+00
28	57	58.8	108	11	070460		EBI-1 LIGAND CHEMOKINE	4.30e+00
29	57	58.8	192	10	023536		RESISTANCE GENE HOMOLO	4.30e+00
30	57	58.8	859	14	097013		ENVELOPE GLYCOPROTEIN	4.30e+00
31	57	58.8	1224	5	P91309		CODED FOR BY C. ELEGAN	4.30e+00
32	57	58.8	1361	10	004264		DONMY MILDEN RESISTANC	4.30e+00
33	56	57.7	104	13	073912		K60 PROTEIN PRECURSOR.	6.60e+00
34	56	57.7	522	5	061090		SERINE RICH PROTEIN HO	6.60e+00
35	56	57.7	552	5	046178		RADIAL SPOKEHEAD.	6.60e+00
36	56	56.7	145	2	P74671		HYPOTHETICAL 16.6 KD P	1.01e+01
37	55	56.7	248	10	081404		1-AMINOACYCLOPROPANE-1-	1.01e+01
38	55	56.7	307	10	065737		BETA-GALACTOSIDASE (EC	1.01e+01
39	55	56.7	350	3	006151		CHROMOSOME XII COSMID	1.01e+01
40	55	56.7	397	3	012123		03625P.	1.01e+01
41	55	56.7	466	10	082719		ACC SYNTHASE (EC 4.4.1	1.01e+01
42	55	56.7	491	10	043747		1-AMINOACYCLOPROPANE-1-	1.01e+01
43	55	56.7	497	10	042610		1-AMINOACYCLOPROPANE-1-	1.01e+01
44	55	56.7	730	10	065736		BETA-GALACTOSIDASE (EC	1.01e+01
45	54	55.7	172	2	051136		HIT054 HOMOLOG (FRAGME	1.53e+01
46	54	55.7	475	4	060646		HYPOTHETICAL 53.8 KD P	1.53e+01
47	54	55.7	852	14	073303		ENVELOPE GLYCOPROTEIN.	1.53e+01
48	54	55.7	949	5	P90956		T0103.3.	1.53e+01
49	54	55.7	1825	5	061210		H19M22.1 PROTEIN (FRAG	1.53e+01
50	54	55.7	2276	4	075050		K1A0462 PROTEIN (FRAG	1.53e+01
51	53	54.6	100	14	040501		ENVELOPE GLYCOPROTEIN	2.31e+01
52	53	54.6	143	3	050035		Y2166J.	2.31e+01
53	53	54.6	178	2	031562		VEIF PROTEIN.	2.31e+01
54	53	54.6	208	2	056669		MANNOSE-SENSITIVE HEMA	2.31e+01
55	53	54.6	282	2	P66965		2-HYDROXY-6-OXO-7-METH	2.31e+01
56	53	54.6	629	5	P91819		RNA POLYMERASE II LARG	2.31e+01
57	53	54.6	1422	10	023533		RESISTANCE GENE HOMOLO	3.47e+01
58	52	53.6	95	2	P70808		ATP BINDING PROTEIN (F	3.47e+01
59	52	53.6	101	13	093442		LECA-1 PROTEIN PRECURS	3.47e+01
60	52	53.6	108	2	050686		INSERTION ELEMENT IS61	3.47e+01
61	52	53.6	117	10	042317		BETA GALACTOSIDASE (FR	3.47e+01
62	52	53.6	332	1	028318		PYRIDATE FORMATE-LYASE	3.47e+01
63	52	53.6	348	3	074739		CONSERVED HYPOTHETICAL	3.47e+01
64	52	53.6	363	7	095394		MHC CLASS I PROTEIN MO	3.47e+01
65	52	53.6	430	2	052417		RVU.V.	3.47e+01
66	52	53.6	770	5	060999		CUL.A.	3.47e+01
67	52	53.6	852	10	023243		BETA-GALACTOSIDASE.	3.47e+01
68	52	53.6	853	10	042150		BETA-GALACTOSIDASE LK	3.47e+01
69	52	53.6	991	10	080820		T26013.4 PROTEIN.	3.47e+01
70	52	53.6	1589	5	045569		F54F11.2.	3.47e+01
71	52	53.6	1872	11	P70208		PLEXIN 3.	3.47e+01
72	52	53.6	26926	4	010466		TITIN, HEART ISOFORM N	3.47e+01
73	51	52.6	71	7	031525		MHC CLASS IA (FRAGMENT	5.18e+01
74	51	52.6	94	14	098157		VMIP-1B.	5.18e+01
75	51	52.6	94	14	076035		ENVELOPE GLYCOPROTEIN	5.18e+01
76	51	52.6	95	14	075362		ENVELOPE GLYCOPROTEIN	5.18e+01
77	51	52.6	188	5	045136		COSD2.8 PROTEIN.	5.18e+01
78	51	52.6	215	3	000843		PEPTATE LYSASE C.	5.18e+01
79	51	52.6	257	11	088827		PLASMA CELL MEMBRANE G	5.18e+01
80	51	52.6	285	14	087013		POSSIBLE REPLICATION A	5.18e+01
81	51	52.6	389	11	058409		389A LONG HYPOTHETICA	5.18e+01
82	51	52.6	497	14	076694		GLYCOPROTEIN 120 (FRAG	5.18e+01
83	51	52.6	724	10	079985		VIRAL ENVELOPE PROTEIN	5.18e+01
84	51	52.6	825	2	081100		BETA-GALACTOSIDASE (EC	5.18e+01
85	51	52.6	825	2	P73065		HYPOTHETICAL 92.5 KD P	5.18e+01
86	51	52.6	836	9	048483		COMPLETE NUCLEOTIDE SE	5.18e+01
87	51	52.6	847	14	P88525		ENVELOPE GLYCOPROTEIN	5.18e+01
88	51	52.6	854	14	072744		ENVELOPE GLYCOPROTEIN	5.18e+01
89	51	52.6	854	14	097016		ENVELOPE GLYCOPROTEIN	5.18e+01
90	51	52.6	856	14	P88523		ENVELOPE GLYCOPROTEIN	5.18e+01
91	51	52.6	1038	10	023532		RESISTANCE GENE.	5.18e+01
92	51	52.6	1072	5	025157		V-SEEA 5.	5.18e+01
93	51	52.6	1231	5	026153		V-SEEA 4.	5.18e+01

94 51 52.6 2919 14 085431 RNA POLYMERASE
95 50 51.5 167 7 046748 MHC CLASS I HEAVY CHAI
96 50 51.5 202 14 089966 ENVELOPE GLYCOPROTEIN
97 50 51.5 306 5 023084 COSMID ZC8.
98 50 51.5 723 10 082670 BETA-GALACTOSIDASE (EC
99 50 51.5 804 5 P91199 SIMILARITY TO C2 DOMAIN
100 50 51.5 962 14 065162 PC962R.

ALIGNMENTS

RESULT 1
ID 035933 PRELIMINARY; PRT; 395 AA.
AC 035933;
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE FRACITALKINE.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCUROGNATHI; MURIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RA STRAIN-BALB/C; TISSUE-BRAIN;
RA ROSSI D., HARDIMAN G., COPELAND N., GILBERT D.J., JENKINS N.,
RA ZLOTNIK A., BAZAN J.F.;
RL SUBMITTED (MAR-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
LN EMBL: U92565; G2459677; -.
LN PFM: PF00048; 118; 1.
SQ SEQUENCE 395 AA; 42040 MW; 3997A113 CRC32;

Query Match
Best Local Similarity 83.5%; Score 81; DB 11; Length 395;
Matches 9; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 73 FCADPKKQWQ 83
QY 2 ICADPKKQWQ 12

RESULT 2
ID 035188 PRELIMINARY; PRT; 395 AA.
AC 035188;
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE NEUROACTIN.
GN SCYD1.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCUROGNATHI; MURIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RA MEDLINE; 97320499.
RA PAN Y., CLARE L., HONG Z., DOLICH S., DEEDS J., GONZALO J., VATH J.,
RA GOSSELIN M., MA J., DUSSAULT B., WOOLF B., ALPERIN A., CULPEPPER J.,
RA GUTIERREZ-RAMOS J.C., GEARING D.;
RT "Neuroactin," a membrane-anchored chemokine upregulated in brain
inflammation."
RL NATURE 387:611-617(1997).
DR EMBL: AF010586; G2317698; -.
DR MGD: MGI:1097153; SCYD1.
DR PFM: PF00048; 118; 1.
SQ SEQUENCE 395 AA; 42098 MW; E3CD0612 CRC32;

Query Match
Best Local Similarity 83.5%; Score 81; DB 11; Length 395;
Matches 9; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 73 FCADPKKQWQ 83
QY 2 ICADPKKQWQ 12

RESULT 3
ID 000175 PRELIMINARY; PRT; 119 AA.
AC 000175;
DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE MPTF2.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RA PATEL V.P., KREIDER B.L., LI Y., LI H., LEUNG K., SALCEDO T.,
RA NARDELLI B., PIPALLA V., GENTZ S., THOTAKURA R., PARMELEE D.,
RA GENTZ R., GAROTTA G.;
RL J. EXP. MED. 0:0-0(0).
DR EMBL: U85768; G1916252; -.
DR PFM: PF00048; 118; 1.
SQ SEQUENCE 119 AA; 13119 MW; CDF526F0 CRC32;

Query Match
Best Local Similarity 79.4%; Score 77; DB 4; Length 119;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 72 QFCGDPKQWQ 83
QY 1 ICADPKKQWQ 12

RESULT 4
ID 089093 PRELIMINARY; PRT; 97 AA.
AC 089093;
DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CC CHEMOKINE ST38 PRECURSOR.
GN LARC.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
OC RODENTIA; SCUROGNATHI; MURIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RA TRANS-SCHNEITZ U., LOREZ H., KLINKERT W.E.F., DA SILVA J.,
RA LESSLAUER W.;
RT "A novel rat CC chemokine, identified by targeted differential
RT display, is upregulated in brain inflammation."
RL J. NEUROIMMUNOL. 0:0-0(1998).
RN [2]
RP SEQUENCE FROM N.A.
RA VILLANES R.;
RL SUBMITTED (JUL-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AF053313; G3551819; -.
DR EMBL: AJ007862; E1312757; -.
KW SIGNAL.
FT SIGNAL. 1 27 POTENTIAL
FT CHAIN 28 97 CC CHEMOKINE ST38.
SQ SEQUENCE 97 AA; 10826 MW; 053405BD CRC32;

Query Match
Best Local Similarity 78.4%; Score 76; DB 11; Length 97;
Matches 8; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 74 VCADPKQWV 83
QY 2 ICADPKKQWV 11

RESULT 5
ID 000585 PRELIMINARY; PRT; 134 AA.
AC 000585;
DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)

DI 01-NOV-1998 (TREMELREL. 08, LAST ANNOTATION UPDATE)
 3E BETA CHEMOKINE EXODUS-2.
 75 HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
 OC CATARRHINI; HOMINIDAE; HOMO.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA HROMAS R.A., GRAY P., KLEMS M., FIFE K., BROXMEYER H.;
 RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 97400322.
 RA HEDRICK J.A.; ZLOTNIK A.;
 RT "Identification and characterization of a novel beta chemokine
 RL containing six conserved cysteines.";
 RL J. IMMUNOL. 159:1589-1593(1997).
 RN [3]
 RP SEQUENCE FROM N.A.
 RA HEDRICK J.A.; ZLOTNIK A.;
 RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [4]
 RP SEQUENCE FROM N.A.
 RA NAGIRA M., IMAI T., HIESHIMA K., KUSUDA J., RIDANPAA M., TAKAGI S.,
 RA NISHIMURA M., KAKIZAKI M., NOMIYAMA H., YOSHIE O.;
 RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: U88320; G2196920; -
 DR EMBL: AF001979; G2624925; -
 DR EMBL: AB002409; D1022673; -
 DR PFAM: PF00048; I18; 1.
 SQ SEQUENCE 134 AA; 14646 MW; FE86A239 CRC32;

Query Match 78.4%; Score 76; DB 4; Length 134;
 Best Local Similarity 75.0%; Pred. No. 5.76e-04;
 Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 73 EICADPKELWQ 84
 1 EICADPKOKWQ 12

RESULT 6
 ID 088430 PRELIMINARY; PRT: 92 AA.
 AC 088430;
 DT 01-NOV-1998 (TREMELREL. 08, CREATED)
 DT 01-NOV-1998 (TREMELREL. 08, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMELREL. 08, LAST ANNOTATION UPDATE)
 DE CC CHEMOKINE ABCD-1.
 OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
 OC RODENTIA; SCIROGNATHI; MORIDAE; MORINAE; MUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-LIVER;
 RX MEDLINE: 98353531.
 RA SCHANIEL C., PARDALI E., SALLUSTO F., SPELETAS M., RUDEL C.,
 RA SHIRIZ T., SEIDL T., ANDERSSON J., MELCHERS F., ROLINK A.G.,
 RA SIDERAS P.;
 RT "Activated murine B lymphocytes and dendritic cells produce a novel
 RL CC chemokine which acts selectively on activated T cells.";
 RL J. EXP. MED. 188:451-463(1998).
 DR EMBL: AF052505; G3378116; -
 SQ SEQUENCE 92 AA; 10302 MW; BC7219A0 CRC32;

Query Match 77.3%; Score 75; DB 11; Length 92;
 Best Local Similarity 72.7%; Pred. No. 9.50e-04;
 Matches 8; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 74 DICADPKWV 84
 1 EICADPKOKWV 11

RESULT 7

ID 057411 PRELIMINARY; PRT: 97 AA.
 AC 057411;
 DT 01-JUN-1998 (TREMELREL. 06, CREATED)
 DT 01-JUN-1998 (TREMELREL. 06, LAST SEQUENCE UPDATE)
 DT 01-JUN-1998 (TREMELREL. 06, LAST ANNOTATION UPDATE)
 DE LYMPHOTACTIN PRECURSOR.
 OS GALUS GALUS (CHICKEN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ARCHOSAURIA; AVES;
 OC NEOGNATHAE; GALLIFORMES; PHASIANIDAE; PHASIANINAE; GALLUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-SPLEEN;
 RA ROSSI D.L., BAZAN J.F., ZLOTNIK A.;
 RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: AF006742; G2827882; -
 KW SIGNAL.
 FT SIGNAL. 25 24 POTENTIAL.
 FT CHAIN 25 97 LYMPHOTACTIN.
 SQ SEQUENCE 97 AA; 11131 MW; 3290101C CRC32;

Query Match 75.3%; Score 73; DB 13; Length 97;
 Best Local Similarity 72.7%; Pred. No. 2.56e-03;
 Matches 8; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Db 72 ICVHPDQKRWQ 82
 2 ICADPKOKWQ 12

RESULT 8
 ID 014745 PRELIMINARY; PRT: 80 AA.
 AC 014745;
 DT 01-NOV-1996 (TREMELREL. 01, CREATED)
 DT 01-NOV-1996 (TREMELREL. 01, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMELREL. 08, LAST ANNOTATION UPDATE)
 DE LD78 ALPHA BETA PRECURSOR (FRAGMENT).
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
 OC CATARRHINI; HOMINIDAE; HOMO.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-BRAIN;
 RA ISHIZUKA K., IGATA-YI R., NARUSE K., NAKASHIMA H., OHUCHI K.,
 RA KATSURAGI S., KIN Y., OHMOTO Y., NOMIYAMA H., ITO M., MURA R.,
 RA MIYAKAWA T.;
 RL SUBMITTED (AUG-1995) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: D63785; G961440; -
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 DR PFAM: PF00048; I18; 1.
 KW SIGNAL.
 FT NON_TER 1 1
 FT SIGNAL <1 16 POTENTIAL.
 FT CHAIN 17 >80 LD78 ALPHA BETA.
 FT NON_TER 80 80
 SQ SEQUENCE 80 AA; 8857 MW; 3F87F1C6 CRC32;

Query Match 74.2%; Score 72; DB 4; Length 80;
 Best Local Similarity 58.3%; Pred. No. 4.19e-03;
 Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 65 QVCADPSEWQ 76
 1 EICADPKOKWQ 12

RESULT 9
 ID 099664 PRELIMINARY; PRT: 95 AA.
 AC 099664;
 DT 01-MAY-1997 (TREMELREL. 03, CREATED)
 DT 01-MAY-1997 (TREMELREL. 03, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMELREL. 08, LAST ANNOTATION UPDATE)
 DE CHEMOKINE EXODUS.
 OS HOMO SAPIENS (HUMAN).

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OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-PANCREAS;
RX MEDLINE; 9275143.
RA HROMAS R., GRAY P.W., CHANTRY D., GODISKA R., KRATHWOHL M., FIRE K.,
  BELL G.I., TAKEDA J., ARONICA S., GORDON M., COOPER S., BROMMEYER H.E.,
  KLEMSZ M.J.;
  "Cloning and characterization of exodus, a novel beta-chemokine.";
RL BLOOD 89;3315-3322(1997).
DR EMBL; U64197; G1778717; -.
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
DR PFAM; PF00048; 118; 1.
SQ SEQUENCE 95 AA; 10691 MW; 1526BAC0 CRC32;

Query Match
Best Local Similarity 74.2%; Score 72; DB 4; Length 95;
Matches 7; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 72 VCANPKQWV 81
QY :||:|||||
2 ICADPKQKWV 11

RESULT 10
ID P97884 PRELIMINARY; PRT; 96 AA.
AC P97884;
DT 01-MAY-1997 (TREMBLREL. 03, CREATED)
DT 01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CC CHEMOKINE EXODUS.
OS RATTUS NORVEGICUS (RAT).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCUROGNATHI; MORIDAE; MORINAE; RATTUS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-SPRAGUE-DAWLEY;
RA KEINER G.S., MACIEJEMSKI-LENOIR D., LEE E.D., MAKI R.A.;
RL SUBMITTED (FEB-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RC STRAIN-FISHER 344; TISSUE-BRAIN;
RA UFRANS-SCHNEITZ U., LOREZ H., KLINKERT W.E.F., DA SILVA J.,
  LESSLAUER W.;
  "A novel rat CC chemokine, identified by targeted differential
  display, is upregulated in brain inflammation.";
RL J. NEUROIMMUNOL. 0:0-0(1998).
DR EMBL; U90447; G1899246; -.
DR EMBL; AF053312; G351817; -.
DR PFAM; PF00048; 118; 1.
KW SIGNAL.
SQ SEQUENCE 96 AA; 10875 MW; 3FC09DD8 CRC32;

Query Match
Best Local Similarity 74.2%; Score 72; DB 11; Length 96;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 73 VCADPKQWV 82
QY :|||||
2 ICADPKQKWV 11

RESULT 11
ID O15467 PRELIMINARY; PRT; 120 AA.
AC O15467;
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE IT-10-INDUCIBLE CHEMOKINE.
ILINCK OR SCYAL6.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;

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OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RA HEDRICK J.A., HELMS A., GORMAN D., ZLOTNIK A.;
RL SUBMITTED (NOV-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE-LIVER;
RA SHOUDEI K., HIESHIMA K., FUKUDA S., IIO M., MIURA R., IMAI T.,
  YOSHIE O., NOMIYAMA H.;
  BIOCHIM. BIOPHYS. ACTA 0:0-0(1998).
RN [3]
RP SEQUENCE FROM N.A.
RA NOMIYAMA H.;
  "Structure of a region of 181 kb containing five CC chemokine genes.";
RL SUBMITTED (AUG-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [4]
RP SEQUENCE FROM N.A.
RX MEDLINE; 98308096.
RA YOUN B.S., ZHANG S., BROMMEYER H.E., ANTOL K., FRASER M.J. JR.,
  HANGOC G., KWON B.S.;
  "Isolation and characterization of LMC, a novel lymphocyte and
  monocyte chemoattractant human CC chemokine, with myelosuppressive
  activity.";
RL BIOCHEM. BIOPHYS. RES. COMMUN. 247:217-222(1998).
DR EMBL; U91746; G2581781; -.
DR EMBL; AB007454; D1024563; -.
DR EMBL; AF088219; G3719365; -.
DR EMBL; AF055467; G3395776; -.
DR PFAM; PF00048; 118; 1.
KW SIGNAL.
SQ SEQUENCE 120 AA; 13600 MW; A079DF66 CRC32;

Query Match
Best Local Similarity 72.2%; Score 70; DB 4; Length 120;
Matches 6; Conservative 5; Mismatches 1; Indels 0; Gaps 0;

Db 74 EVCNPNDDWQV 85
QY :|:|:|:|:|
1 EICADPKQKWV 12

RESULT 12
ID O93238 PRELIMINARY; PRT; 101 AA.
AC O93238;
DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CC CHEMOKINE-1.
OS CYPRINUS CARPIO (COMMON CARP).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ACTINOPTERYGII; NEOPTERYGII;
OC TELEOSTEI; EUTELEOSTEI; OSTARIOPHYSI; CYPRINIFORMES; CYPRINIDEA;
OC CYPRINIDAE; CYPRININAE; CYPRINUS.
RN [1]
RP SEQUENCE FROM N.A.
RA FUJIKI K., NAKAO M., SHIN D., YANO T.;
  "cDNA cloning of a carp CC chemokine homologous to mammalian
  eotaxins.";
RL SUBMITTED (JAN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; AB010469; D1032417; -.
SQ SEQUENCE 101 AA; 11266 MW; 9CFBD540 CRC32;

Query Match
Best Local Similarity 71.1%; Score 69; DB 13; Length 101;
Matches 7; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 72 EFCSDPLRWV 82
QY :|:|:|:|:|
1 EICADPKQKWV 11

RESULT 13
ID O43646 PRELIMINARY; PRT; 91 AA.

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AC 043646;
DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE RANTES PRECURSOR.
GN SCY5.
OS HOMO SAPIENS (HUMAN).
OC EUKAROTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN
RN [1]
RP SEQUENCE FROM N.A.
RA JANG J.S., KIM B.E.;
RL SUBMITTED (JAN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RA NOMIYAMA H.;
RL "Structure of a region of 181 kb containing five CC chemokine genes."
DR EMBL; AF043341; G2805632; -;
DR EMBL; AF088219; G3719366; -;
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW SIGNAL.
FT SIGNAL. 1 23 POTENTIAL.
FT CHAIN 24 91 RANTES.
SQ SEQUENCE 91 AA; 9990 MW; CF404FAD CRC32;
Query Match 70.1%; Score 68; DB 4; Length 91;
Best Local Similarity 50.0%; Pred. No. 2.89e-02;
Matches 6; Conservative 4; Mismatches 2; Indels 0; Gaps 0;
Db 71 QVCANPEKKWV 82
QY 1 EICADPKKWKVQ 12
RESULT 14
ID 062812 PRELIMINARY; PRT; 97 AA.
AC 062812;
DI 01-AUG-1998 (TREMBLREL. 07, CREATED)
DI 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
DT 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 (FRAGMENT).
GN IL-8.
OS EQUUS CABALLUS (HORSE).
OC EUKAROTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
OC PERISSODACTYLA; EQUIDAE; EQUUS.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-BRONCHOALVEOLAR TISSUE.
RA FRANCHINI M.;
RL SUBMITTED (APR-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; AF062377; G3126973; -;
FT NON_TER 97 97
SQ SEQUENCE 97 AA; 10742 MW; 00396FBF CRC32;
Query Match 70.1%; Score 68; DB 6; Length 97;
Best Local Similarity 58.3%; Pred. No. 2.89e-02;
Matches 7; Conservative 2; Mismatches 3; Indels 0; Gaps 0;
Db 75 EVCINPHTKWKVQ 86
QY 1 EICADPKKWKVQ 12
RESULT 15
ID 098158 PRELIMINARY; PRT; 95 AA.
AC 098158; 012569;
DT 01-FEB-1997 (TREMBLREL. 02, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE ORF K6.
OS KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS.
OC VIRUSES; DSDNA VIRUSES; NO RNA STAGE; HERPESVIRIDAE;

OC GAMMAHERPESVIRINAE; RHADINOVIRUS.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE; 97094384.
RA MOORE P.S., BASHOFF C., WEISS R.A., CHANG Y.;
RT "Molecular mimicry of human cytokine and cytokine response pathway
RT genes by KSHV".
RL SCIENCE 274:1739-1744(1996).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE; 97121480.
RA RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
RT "Nucleotide sequence of the Kaposi sarcoma-associated herpesvirus
RT (HHV8)".
RL PROC. NATL. ACAD. SCI. U.S.A. 93:14862-14867(1996).
RN [3]
RP SEQUENCE FROM N.A.
RA RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
RL SUBMITTED (OCT-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [4]
RP SEQUENCE FROM N.A.
RA NICHOLAS J., RUYOLO V.R., BURNS W.H., SANDFORD G., MAN X., CIUPO D.,
RA HENDRICKSON S., GAO H.G., HAYWARD G.S., REITZ M.S.;
RL SUBMITTED (NOV-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [5]
RP SEQUENCE FROM N.A.
RA RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [6]
RP SEQUENCE FROM N.A.
RX MEDLINE; 97296220.
RA NEIPEL F., ALBRECHT J.C., FLECKENSTEIN B.;
RT "Cell-homologous genes in the Kaposi's sarcoma-associated rhadinovirus
RT human herpesvirus 8: determinants of its pathogenicity?".
RL J. VIROL. 71:4187-4192(1997).
RN [7]
RP SEQUENCE FROM N.A.
RA SUN R., LIN S.-F., MILLER G.;
RL SUBMITTED (SEP-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; U75698; G1718266; -;
DR EMBL; U74585; G1638273; -;
DR EMBL; U93872; G2246546; -;
DR EMBL; U71366; G3551763; -;
DR PFAM; PF00048; 118; 1.
KW HYPOTHEICAL PROTEIN.
SQ SEQUENCE 95 AA; 10485 MW; 5283348D CRC32;
Query Match 69.1%; Score 67; DB 14; Length 95;
Best Local Similarity 58.3%; Pred. No. 4.65e-02;
Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;
Db 74 QICADPSKNWV 85
QY 1 EICADPKKWKVQ 12
RESULT 16
ID 055038 PRELIMINARY; PRT; 109 AA.
AC 055038;
DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE B LYMPHOCYTE CHEMOKINE TRACTANT BLC.
OS MUS MUSCULUS (MOUSE).
OC EUKAROTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCIURIONATHI; MURIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-CS7BL/6J;
RX MEDLINE; 98146056.

DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE SMALL INDUCIBLE CYTOKINE A21 (TCA4).
GN SCY21.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
UN SCURORONATHI; MURIDA; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-THYMUS;
RA TANABE S., LU Z., LIO Y., QUACKENBUSH E.J., BERMAN M.A.,
RA COLLINS-RACIE L.A., MI S., REILLY C., LO D., JACOBS K.A., DORF M.E.;
RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE; 97400322.
RA HEDRICK J.A., ZLOTNIK A.;
RT "Identification and characterization of a novel beta chemokine
RT containing six conserved cysteines.";
RL J. IMMUNOL. 159:1589-1593(1997).
RN [3]
RP SEQUENCE FROM N.A.
RA HEDRICK J.A., ZLOTNIK A.;
RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; AF006637; G2209189; -;
DR EMBL; AF001980; G2624927; -;
DR MGI; 1097677; SCY21.
DR PFAM; PF00048; 118; 1.
SQ SEQUENCE 133 AA; 14558 MW; C0532523 CRC32;

Query Match
Best Local Similarity 58.3%; Score 66; DB 11; Length 133;
Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 73 EICADPKKQWQ 84
:|:|:|:|:
Qy 1 EICADPKKQWQ 12

DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CXC CHEMOKINE PRECURSOR.
GN BCA-1.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
UN CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE; 98130629.
RA LEGIER D.F., LOETSCHER M., STUBER ROOS R., CLARK-LEWIS I.,
RA BAGGIOLINI M., MOSER B.;
RT "B cell-attracting chemokine 1, a human CXC chemokine expressed in
RT lymphoid tissues, selectively attracts B lymphocytes via BLR1/CXCR5.";
RL J. EXP. MED. 187:655-660(1998).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE; 98146056.
RA GUNN M.D., NGO V.N., ANSEL K.N., EKLAND E.H., CYSTER J.G.,
RA WILLIAMS L.T.;
RT "A B-cell-homing chemokine made in lymphoid follicles activates
RT Burkitt's lymphoma receptor-1.";
RL NATURE 391:799-803(1998).
RN [3]
RP SEQUENCE FROM N.A.
RA NAPOLITANO M., SPINETTI G., GAETANO C., CAPOROSSI C.M.;
RL SUBMITTED (OCT-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; AJ002211; E1249325; -;
DR EMBL; AF044197; G2911376; -;
DR EMBL; AF029894; G3169814; -;
DR SIGNAL.
KV SIGNAL.
FT SIGNAL.
FT CHAIN 1 22 POTENTIAL.
SQ SEQUENCE 109 AA; 12664 MW; B5346BC CRC32;

Query Match
Best Local Similarity 61.9%; Score 60; DB 4; Length 109;
Matches 5; Conservative 2; Mismatches 4; Indels 0; Gaps 0;

Db 75 VCVDPQAEWQ 85
:|:|:|:|:
Qy 2 ICADPKKQWQ 12

RA HATCH B., HORST K., ROBERTS K., WATTHEY L., WEIDMAN J., SMITH H.O.,
 RA VENTER J.C.;
 RL SUBMITTED (MAR-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: AE001226; G3322795; -;
 KW HYPOTHETICAL PROTEIN.
 SQ SEQUENCE 187 AA; 21410 MW; 50303E26 CRC32;

Query Match 60.8%; Score 59; DB 2; Length 187;
 Best Local Similarity 63.6%; Pred. No. 1.80e+00;
 Matches 7; Conservative 3; Mismatches 0; Indels 1; Gaps 1;

Db 31 CTOPEVOKWVQ 41
 : : : : :
 QY 3 CADPK-QKWVQ 12

RESULT 24
 ID 067634 PRELIMINARY; PRT; 203 AA.
 AC 067634;
 DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
 DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE ECO Q PROTEIN (FRAGMENT).
 OS GALLID HERPESVIRUS TYPE 1.
 OC VIRUSES; DSDNA VIRUSES, NO RNA STAGE; HERPESVIRIDAE;
 OC ALPHAHERPEVIRINAE; VARICELLOVIRUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-GA;
 RX MEDLINE: 96074534.
 RA PENG Q., ZENG M., BHUIYAN Z.A., UBUKATA E., TANAKA A., NONOYAMA M.,
 RA SHIRAZI Y.;
 RT "Isolation and characterization of Marek's disease virus (MDV) cDNAs
 RT mapping to the BamHI-12, BamHI-Q2, and BamHI-L fragments of the MDV
 RT genome from lymphoblastoid cells transformed and persistently infected
 RT with MDV.";
 RL VIROLOGY 213:590-599(1995).
 DR EMBL: U34966; G1185444; -;
 DR PFAM: PF00048; 118; 1;
 FT NON_TER 1
 SQ SEQUENCE 203 AA; 23132 MW; 887D04C3 CRC32;

Query Match 60.8%; Score 59; DB 14; Length 203;
 Best Local Similarity 54.5%; Pred. No. 1.80e+00;
 Matches 6; Conservative 1; Mismatches 4; Indels 0; Gaps 0;

Db 145 VCVDPEAPWVQ 155
 : : : : :
 QY 2 ICADPKOKWVQ 12

RESULT 25
 ID 068409 PRELIMINARY; PRT; 399 AA.
 AC 068409;
 DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
 DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE ORF U154.
 OS HUMAN CYTOMEGALOVIRUS.
 OC VIRUSES; DSDNA VIRUSES, NO RNA STAGE; HERPESVIRIDAE; BETAHERPESVIRINAE;
 OC CYTOMEGALOVIRUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-TOWNE;
 RX MEDLINE: 96099416.
 RA CHA T.A., TOM E., KEMBLE G.W., DUKE G.M., MOCARSKI E.S., SPAETE R.R.;
 RT "Human cytomegalovirus clinical isolates carry at least 19 genes not
 RT found in laboratory strains.";
 RL J. VIROL. 70:78-83(1996).
 DR EMBL: U3332; G1167943; -;
 SQ SEQUENCE 399 AA; 45181 MW; 79B5D103 CRC32;

Query Match 60.8%; Score 59; DB 14; Length 399;

Best Local Similarity 44.4%; Pred. No. 1.80e+00;
 Matches 4; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 308 VCEEPKHEW 316
 : : : : :
 QY 2 ICADPKOKW 10

RESULT 26
 ID 093290 PRELIMINARY; PRT; 982 AA.
 AC 093290;
 DT 01-FEB-1997 (TREMBLREL. 02, CREATED)
 DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE HYPOTHETICAL PROTEIN C27D8.3.
 GN C27D8.3.
 OS CAENORHABDITIS ELEGANS.
 OC EUKARYOTA; METAZOA; NEMATODA; SECERNENTEA; RHABDITIA; RHABDITIDA;
 OC RHABDITIA; RHABDITOIDEA; RHABDITIDAE; PELODERINAE; CAENORHABDITIS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA PERCY C.;
 RL SUBMITTED (SEP-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 94150718.
 RA WILSON R., AINSCOUGH R., ANDERSON K., BAYNES C., BERKS M., BONFIELD J.,
 RA BURTON J., CONNELL M., COPSEY T., COOPER J., COULSON A., CRAYTON M.,
 RA DEAR S., DU Z., DUREIN R., FAVELLO A., FULTON L., GARDNER A., GREEN P.,
 RA HAWKINS T., HILLIER L., JIER M., JOHNSTON L., JONES M., KESHAM J.,
 RA KIRSTEN J., LAISTER N., LATREILLE P., LIGHTNING J., LLOYD C.,
 RA KEMURRAY A., MORTIMORE B., O'CALLAGHAN M., PARSONS J., PERCY C.,
 RA RIEKEN L., ROOPRA A., SAUNDERS D., SHOWNKEN R., SMALDON N., SMITH A.,
 RA SONNHAMMER E., STADEN R., SULSTON R., THERRY-MIEG J., THOMAS K.,
 RA VANDIN M., VAUGHAN K., WATERSTON R., WATSON A., WEINSTOCK L.,
 RA WILKINSON-SPROAT J., WOLDMAN P.;
 RT "2.2 Mb of contiguous nucleotide sequence from chromosome III of C.
 RT elegans.";
 RL NATURE 368:32-38(1994).
 DR EMBL: Z80214; E347995; -;
 KW HYPOTHETICAL PROTEIN.
 SQ SEQUENCE 982 AA; 112538 MW; 41972852 CRC32;

Query Match 59.8%; Score 58; DB 5; Length 982;
 Best Local Similarity 45.5%; Pred. No. 2.79e+00;
 Matches 5; Conservative 4; Mismatches 2; Indels 0; Gaps 0;

Db 188 VCEAPKOWWVQ 198
 : : : : :
 QY 2 ICADPKOKWVQ 12

RESULT 27
 ID 084834 PRELIMINARY; PRT; 1053 AA.
 AC 084834;
 DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE RIBONUCLEOSIDE REDUCTASE, LARGE CHAIN.
 GN NRDA.
 OS CHLAMYDIA TRACHOMATIS.
 OC BACTERIA; CHLAMYDIALES; CHLAMYDIACEAE; CHLAMYDIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-D/UW-3/CX;
 RA STEPHENS R.S., KALMAN S., LAMMEL C.J., FAN J., MARATHE R., ARAYIND L.,
 RA MITCHELL W.P., OLINGER L., TATISOV R.L., ZHAO Q., KOONIN E.V.,
 RA DAVIS R.W.;
 RT "Genome Sequence of an Obligate Intracellular Pathogen of Humans:
 RT Chlamydia trachomatis.";
 RL SCIENCE 0:0-0(1998).
 RN [2]
 RP SEQUENCE FROM N.A.

RC STRAIN-D/WM-3/CX;
 RA STEPHENS R.S., KALMAN S., LAMMEL C.J., FAN J., MARATHE R., ARAVIND L.,
 RA MITCHELL W.P., OLINGER L., TATISOV R.L., ZHAO Q., KOONIN E.V.,
 RA DAVIS R.W.,
 RL SUBMITTED (MAY-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: AE001355; G3329297;
 SQ SEQUENCE 1053 AA; 120168 MW; 781C449 CRC32;

Query Match 59.8%; Score 58; DB 2; Length 1053;
 Best Local Similarity 50.0%; Pred. No. 2.79e+00;
 Matches 5; Conservative 3; Mismatches 2; Indels 0; Gaps 0;
 Db 954 CASROKWD 963
 QY 3 CADPKOKWQ 12

RESULT 28
 ID 070460 PRELIMINARY; PRT: 108 AA.
 AC 070460;
 DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
 DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
 DT 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
 DE EBI-1 LIGAND CHEMOKINE.
 OS MUS MUSCULUS (MOUSE).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
 OC SCIROGNATHI; MORIDAE; MORINAE; MUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA TISSUE-LYMPHOID;
 RA NGO V.N., TANG H.L., CYSTER J.G.,
 RL J. EXP. MED. 0:0-0(1998).
 DR EMBL: AF059208; G3068765;
 SQ SEQUENCE 108 AA; 11911 MW; E86C4466 CRC32;

Query Match 58.8%; Score 57; DB 11; Length 108;
 Best Local Similarity 50.0%; Pred. No. 4.30e+00;
 Matches 6; Conservative 3; Mismatches 3; Indels 0; Gaps 0;
 Db 73 QLCAPDPQWVD 84
 QY 1 EICADPKOKWQ 12

RESULT 29
 ID 023536 PRELIMINARY; PRT: 192 AA.
 AC 023536;
 DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
 DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
 DT 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
 DE RESISTANCE GENE HOMOLOG.
 OS ARABIDOPSIS THALIANA (MOUSE-EAR CRESS).
 CC EUKARYOTA; VIRIDIPANTAE; CHAROPHYTA/EMBRYOPHYTA GROUP; EMBRYOPHYTA;
 CC IRACHEOPHYTA; EUPHYLOPHYTES; SPERMATOPHYTES; MAGNOLIOPHYTA;
 CC EUDICOTYLEDONS; ROSIDAE; CAPRARIACE; BRASSICACEAE; ARABIDOPSIS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA BEVAN M., STIEKEMA W., MURPHY G., WAMBUTT R., POHL T., TERRY N.,
 RA KREIS M., KAVANAGH T., ENTIAN K.D., RIEGER M., JAMES R.,
 RA PUIGDOMENECH P., HATZPOULOS P., OBERMAIER B., DUESTERHOFF A.,
 RA JONES J., PALME K., ANSORGE W., DEISENY M., BANCROFT I., MEMES H.W.,
 RA SCHUELLER C., CHALMATZIS N.,
 RL SUBMITTED (JUL-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [2]
 RP SEQUENCE FROM N.A.

RA EU ARABIDOPSIS SEQUENCING PROJECT, ESSA;
 RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: Z97342; E327026;
 SQ SEQUENCE 192 AA; 21535 MW; 7BD51863 CRC32;

Query Match 58.8%; Score 57; DB 10; Length 192;
 Best Local Similarity 66.7%; Pred. No. 4.30e+00;
 Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

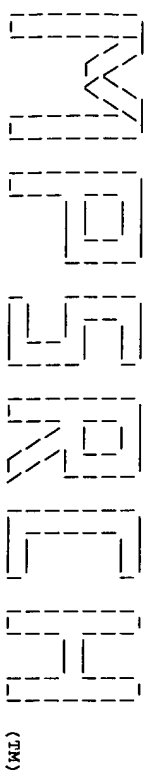
Db 136 GQOKORWQ 144
 QY 4 ADPKOKWQ 12

RESULT 30
 ID 097013 PRELIMINARY; PRT: 859 AA.
 AC 097013;
 DT 01-FEB-1997 (TREMBLREL. 02, CREATED)
 DT 01-FEB-1997 (TREMBLREL. 02, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE ENVELOPE GLYCOPROTEIN (FRAGMENT).
 GN ENV.
 OS HUMAN IMMUNODEFICIENCY VIRUS TYPE 1 (HIV-1).
 CC VIRUSES; RETROID VIRUSES; RETROVIRIDAE; LENTIVIRUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 96190564.
 RA GAO F., MORRISON S.G., ROBERTSON D.L., THORNTON C.L., CRAIG S.,
 RA KARLSSON G., SODROSKI J., MORGADO M., GALVAO-CASTRO B., BRIESE H.,
 RA BEDDOWS S., WEBER J., SHARP P.M., SHAW G.M., HAHN B.H.,
 RT "Molecular cloning and analysis of functional envelope genes from
 RT human immunodeficiency virus type 1 sequence subtypes A through G. The
 RT WHO and NIAID Networks for HIV Isolation and Characterization".
 RL J. VIROL. 70:1651-1657(1996).
 RN [2]
 RP SEQUENCE FROM N.A.
 RA ALLEN E.E.,
 RL SUBMITTED (MAY-1995) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: U27443; G1495977;
 DR PFAM: PF00516; GP120; 1.
 DR PFAM: PF00517; GP41; 1.
 KW ENVELOPE PROTEIN.
 FT NON TER
 SQ SEQUENCE 859 AA; 97274 MW; 15339DB3 CRC32;

Query Match 58.8%; Score 57; DB 14; Length 859;
 Best Local Similarity 50.0%; Pred. No. 4.30e+00;
 Matches 5; Conservative 3; Mismatches 2; Indels 0; Gaps 0;
 Db 31 ICSAAEKWV 40
 QY 2 ICADPKOKWV 11

Search completed: Thu Apr 1 07:23:54 1999
 Job time : 63 secs.

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Msrch_bp protein - protein database search, using Smith-Waterman algorithm

Run on: Thu Apr 1 07:27:49 1999; Maspar time 2.77 Seconds

Tabular output not generated. 58.311 Million cell updates/sec

Title: >US-08-927-939-7
Description: (1-10) from US08927939.pep
Perfect Score: 84
Sequence: 1 CADPKOKWQ 10

Scoring table: PAM 150
Gap 15

Searched: 131922 segs, 16180660 residues

Post-processing: Minimum Match 0%
Listing first 100 summaries

Database:

a-geneseq32
1:part1 2:part2 3:part3 4:part4 5:part5 6:part6 7:part7
8:part8 9:part9 10:part10 11:part11 12:part12 13:part13
14:part14 15:part15 16:part16 17:part17 18:part18
19:part19 20:part20 21:part21 22:part22 23:part23
24:part24 25:part25 26:part26 27:part27 28:part28
29:part29

Statistics: Mean 17.840; Variance 60.479; scale 0.295

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description	Pred. No.
1	84	100.0	66 24	W13598	Monocyte chemoattract	6.67e-02
2	84	100.0	67 24	W13599	Monocyte chemoattract	6.67e-02
3	84	100.0	68 24	W13597	Monocyte chemoattract	6.67e-02
4	84	100.0	69 14	R87678	des(2-8) MCP-1.	6.67e-02
5	84	100.0	69 24	W13596	Monocyte chemoattract	6.67e-02
6	84	100.0	76 15	R87680	Monocyte chemoattract	6.67e-02
7	84	100.0	76 10	R53398	Sense MCP-1.	6.67e-02
8	84	100.0	76 5	R28660	MCP-1.	6.67e-02
9	84	100.0	76 14	R87677	(3-1A) MCP-1.	6.67e-02
10	84	100.0	76 20	W09374	Monocyte chemoattract	6.67e-02
11	84	100.0	76 21	W11131	Mature human monocyte	6.67e-02
12	84	100.0	76 14	R87675	(28-Asp) MCP-1.	6.67e-02
13	84	100.0	76 1	P90292	Peptide from human g1	6.67e-02
14	84	100.0	76 5	R26580	Sequence of bovine P6	6.67e-02
15	84	100.0	77 14	R87676	(24-Arg) MCP-1.	6.67e-02
16	84	100.0	77 15	R86859	Mature MCP-1.	6.67e-02
17	84	100.0	99 2	P95387	Human monocyte chemo-	6.67e-02
18	84	100.0	99 13	R70800	Chemottractant prote	6.67e-02

19	84	100.0	99 5	R26581	Sequence of P6 precur	6.67e-02
20	84	100.0	99 5	R28663	MCF.	6.67e-02
21	84	100.0	99 14	R73914	Human monocyte chemo	6.67e-02
22	80	95.2	71 27	W22675	Dro13 chemokine beta	1.78e-01
23	80	95.2	75 27	W22673	Bac 3 chemokine beta	1.78e-01
24	80	95.2	77 27	W22672	Bac 2 chemokine beta	1.78e-01
25	80	95.2	79 27	W22674	Dro11/2 chemokine bet	1.78e-01
26	80	95.2	82 27	W22671	Bac 1 chemokine beta	1.78e-01
27	80	95.2	82 24	W17665	Stem cell mobilising	1.78e-01
28	80	95.2	98 28	W30191	Monocyte chemoattract	1.78e-01
29	80	95.2	98 17	P93087	Human chemokine beta-	1.78e-01
30	80	95.2	98 27	W22670	Human chemokine beta	1.78e-01
31	80	95.2	99 2	R06398	Human MCF precursor.	1.78e-01
32	80	95.2	99 26	W33347	Novel murine CX3C 35	1.78e-01
33	80	95.2	395 28	W34308	Mouse neurotactin.	1.78e-01
34	77	91.7	67 14	R73915	Human monocyte chemo	3.69e-01
35	77	91.7	73 13	R70252	Eotaxin chemotactra	3.69e-01
36	77	91.7	82 29	W44721	Amino acid sequence o	3.69e-01
37	77	91.7	96 24	W14991	Guinea pig eosinocyte	3.69e-01
38	77	91.7	97 21	W00667	Pancreas expressed ch	3.69e-01
39	77	91.7	97 23	W10099	Human eotaxin.	3.69e-01
40	77	91.7	97 24	W14990	Human eosinocyte CC t	3.69e-01
41	77	91.7	99 13	R70801	Chemottractant prote	3.69e-01
42	77	91.7	109 2	R24353	Cytokine encoded by c	3.69e-01
43	73	86.9	70 24	W17661	Stem cell mobilising	9.68e-01
44	73	86.9	119 17	R85779	Human monocyte chemot	9.68e-01
45	73	86.9	119 22	W07845	Human monocyte chemot	9.68e-01
46	71	84.5	60 24	W17662	Stem cell mobilising	1.56e+00
47	71	84.5	72 13	R70804	Chemottractant MCP-2	1.56e+00
48	71	84.5	89 14	R76127	Macrophage inflammato	1.56e+00
49	71	84.5	89 21	W07204	Human cytokine beta-1	1.56e+00
50	71	84.5	89 25	W23643	Human dendritic cell	1.56e+00
51	71	84.5	109 29	W42072	Human MC proprotein.	1.56e+00
52	71	84.5	109 26	W26655	Human beta-chemokine	1.56e+00
53	70	83.3	73 13	R70251	Eotaxin chemotactra	1.98e+00
54	69	82.1	69 7	R39137	LD78 Glu55>Gln, Glu56	2.51e+00
55	68	81.0	79 24	W17664	Stem cell mobilising	3.18e+00
56	68	81.0	134 21	W00668	Pancreas expressed ch	3.18e+00
57	67	79.8	18 4	R22337	IL8 receptor-interact	4.02e+00
58	67	79.8	29 4	R20237	NAF(44-72) peptide in	4.02e+00
59	67	79.8	67 7	R38086	Modified human interl	4.02e+00
60	67	79.8	67 7	R38087	Modified human interl	4.02e+00
61	67	79.8	68 7	R38085	Modified human interl	4.02e+00
62	67	79.8	68 7	R38084	Modified human interl	4.02e+00
63	67	79.8	69 7	R38082	Modified human interl	4.02e+00
64	67	79.8	69 7	R38081	Modified human interl	4.02e+00
65	67	79.8	69 7	R38942	LD78 Glu55>Arg, Glu56	4.02e+00
66	67	79.8	70 24	W17660	Stem cell mobilising	4.02e+00
67	67	79.8	72 20	R39812	Chemokine-like protel	4.02e+00
68	67	79.8	72 27	W41519	Neutrophil chemotacti	4.02e+00
69	67	79.8	72 11	R70183	Soluble interleukin-8	4.02e+00
70	67	79.8	72 1	R03615	Human neutrophil chem	4.02e+00
71	67	79.8	72 17	R88057	Human interleukin-8.	4.02e+00
72	67	79.8	72 26	P81838	Sequence of a synthe	4.02e+00
73	67	79.8	72 24	W26204	Neutrophil-specific C	4.02e+00
74	67	79.8	72 23	W25703	Mutant human IL-8, E4	4.02e+00
75	67	79.8	72 23	W25713	Mutant human IL-8, F2	4.02e+00
76	67	79.8	72 23	W25707	Mutant human IL-8, Y1	4.02e+00
77	67	79.8	72 23	W25709	Mutant human IL-8, Y4	4.02e+00
78	67	79.8	72 23	W25708	Mutant human IL-8, S1	4.02e+00
79	67	79.8	72 23	W25711	Mutant human IL-8, L4	4.02e+00
80	67	79.8	72 23	W25702	Mutant human IL-8, L4	4.02e+00
81	67	79.8	72 1	P90913	Sequence of a synthe	4.02e+00
82	67	79.8	72 1	R03166	Human neutrophil chem	4.02e+00
83	67	79.8	72 22	W04516	Interleukin(1-72) pro	4.02e+00
84	67	79.8	72 20	R39804	Chemokine-like protel	4.02e+00
85	67	79.8	72 20	R39806	Chemokine-like protel	4.02e+00
86	67	79.8	72 20	R39803	Chemokine-like protel	4.02e+00
87	67	79.8	73 20	R39817	Chemokine-like protel	4.02e+00
88	67	79.8	73 20	P90078	Interleukin-8.	4.02e+00
89	67	79.8	73 20	P90078	Human neutrophil acti	4.02e+00
90	67	79.8	73 20	R39818	Chemokine-like protel	4.02e+00
91	67	79.8	77 1	P90017	Human neutrophil acti	4.02e+00

92	67	79.8	89.12	R70994	Protein encoded by CD	4.02e+00
93	67	79.8	89.13	R75419	Human SDF-1-alpha.	4.02e+00
94	67	79.8	93.13	R75420	Human SDF-1-beta.	4.02e+00
95	67	79.8	96.29	W43398	Human chemokine MIP-3	4.02e+00
96	67	79.8	96.27	W22659	Human chemokine beta4	4.02e+00
97	67	79.8	96.17	R93086	Human chemokine beta-1.	4.02e+00
98	67	79.8	97.13	R70295	Interleukin-8/NAIP-1.	4.02e+00
99	67	79.8	99.2	P93631	Amino acid sequence o	4.02e+00
100	67	79.8	99.1	R05239	Human neutrophil chem	4.02e+00

ALIGNMENTS

RESULT 1
ID W13598 standard; peptide: 66 AA.

DE Monocyte chemoattractant protein analogue MCP-1 (10-76).
KW Truncated monocyte chemoattractant protein-1; inhibitor;
KW receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PA (LEWIS I).
PI Gong J, Lewis I.
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Disclosure; Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (10-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-9 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 66 AA;

Query Match 100.0%; Score 84; DB 24; Length 66;
Best Local Similarity 100.0%; Pred. NO. 6.67e-02;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 42 cadpdkqkvwg 51
| | | | | | | | | |
QY 1 CADPKQKQWQ 10

RESULT 2
ID W13599 standard; peptide: 67 AA.
AC W13599;
DT 07-NOV-1997 (first entry)
DE Monocyte chemoattractant protein analogue MCP-1 (11-76).
KW Truncated monocyte chemoattractant protein-1; inhibitor;
KW receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
KW lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PA (LEWIS I). LEWIS I.

PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Disclosure; Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (11-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-10 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 67 AA;

Query Match 100.0%; Score 84; DB 24; Length 67;
Best Local Similarity 100.0%; Pred. NO. 6.67e-02;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 43 cadpdkqkvwg 52
| | | | | | | | | |
QY 1 CADPKQKQWQ 10

RESULT 3
ID W13597 standard; peptide: 68 AA.

DE Monocyte chemoattractant protein analogue MCP-1 (9-76).
KW Truncated monocyte chemoattractant protein-1; inhibitor;
KW receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PA (LEWIS I).
PI Gong J, Lewis I.
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Claim 7; Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (9-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-8 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 68 AA;

Query Match 100.0%; Score 84; DB 24; Length 68;
Best Local Similarity 100.0%; Pred. NO. 6.67e-02;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 44 cadpdkqkvwg 53
| | | | | | | | | |
QY 1 CADPKQKQWQ 10

RESULT 4
 ID R87678 standard: protein; 69 AA.
 AC R87678;
 DT 21-FEB-1996 (first entry)
 DE des(2-8) MCP-1
 KM monocyte chemoattractant protein; MCP-1; mutant; restenosis;
 OS Homo sapiens.
 FH Key
 FT modified_site 2..3
 FT /note- "amino acids 2-8 of the native protein have
 been deleted between these residues"
 FT disulfide_bond 4...29
 FT disulfide_bond 5...45
 PN MO9513295-A1.
 PD 18-MAY-1995.
 PF 07-NOV-1994; U12874.
 PR 12-NOV-1993; US-152301.
 PA (DAND) DANA FARBER CANCER INST INC.
 PI Rollins B, Zhang YJ;
 DR WPI: 95-215051/28.
 PT Human monocyte chemoattractant protein-1 (MCP-1) derivs. - are
 capable of inhibiting the monocyte chemoattractant activity of
 PT endogenous MCP-1 and can be used to treat restenosis
 PS Claim 4: Page 11: 22pp; English.
 CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
 CC that they inhibit the monocyte chemoattractant activity of endogenous
 CC MCP-1, provided that the derivative has not been modified by the
 CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
 CC are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg
 CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
 CC acids 2-8. The present sequence is a specifically claimed human MCP-1
 CC derivative based on the parent protein disclosed in Rollins, Molecular
 CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
 CC The peptides can be used to prevent restenosis, e.g. in patients
 CC undergoing coronary artery angioplasty.
 SQ Sequence 69 AA;
 Query Match 100.0%; Score 84; DB 14; Length 69;
 Best Local Similarity 100.0%; Pred. No. 6.67e-02;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 DB 45 cadpkrkvwg 54
 |||||||
 QY 1 CADPKRKWVQ 10
 RESULT 5
 ID W13596 standard: peptide; 69 AA.
 AC W13596;
 DT 07-NOV-1997 (first entry)
 DE Monocyte chemoattractant protein analogue MCP-1 (8-76).
 KM Truncated monocyte chemoattractant protein-1; inhibitor;
 KM receptor binding; anti-inflammatory; basophil; lymphocyte; allergy;
 KM chronic inflammatory disease; arthritis; arteriosclerosis;
 KM lung disease.
 OS Homo sapiens.
 PN CA2152141-A.
 PD 20-DEC-1996.
 PF 19-JUN-1995; 152141.
 PR 19-JUN-1995; CA-152141.
 PA (LEWIS) LEWIS I.
 PI Gong J, Lewis I;
 DR WPI: 97-165844/16.
 PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
 PT lacks MCP-1 activity and inhibits receptor binding, useful as
 PT anti-inflammatory agent
 PS Claim 5: Page 5: 27pp; English.
 CC The present sequence represents an analogue, MCP-1 (8-76), of monocyte
 CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
 CC N-terminal amino acids 1-7 of MCP-1, acts as an antagonist of MCP-1

CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
 CC receptor. The analogue is useful as an anti-inflammatory agent to block
 CC the effects of MCP-1 which is an inflammatory mediator causing migration
 CC of monocytes and other cells e.g. basophils and lymphocytes into
 CC inflammatory sites. MCP-1 has been implicated in allergic and chronic
 CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
 CC diseases. The analogue competes more effectively with MCP-1 for binding
 CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
 CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
 CC with 75:1 for prior art mutant 7ND.
 SQ Sequence 69 AA;
 Query Match 100.0%; Score 84; DB 24; Length 69;
 Best Local Similarity 100.0%; Pred. No. 6.67e-02;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 DB 45 cadpkrkvwg 54
 |||||||
 QY 1 CADPKRKWVQ 10
 RESULT 6
 ID R87680 standard: protein; 76 AA.
 AC R87680;
 DT 03-MAR-1996 (first entry)
 DE Monocyte chemotactic activating factor for use as wound remedy.
 KM Monocyte chemotactic activating factor; MCAF; wound remedy.
 OS Homo sapiens.
 PN WO9507710-A1.
 PD 23-MAR-1995.
 PF 13-SEP-1994; J01512.
 PR 13-SEP-1993; JP-227385.
 PA (TORA) TORAY IND INC.
 PI Matsushima K, Naruto M;
 DR WPI: 95-131181/17.
 PT Wound treatment using monocyte chemotactic factor - has potent
 PT therapeutic effect on skin wounds and ulcers
 PS Disclosure; Page 12: 22pp; Japanese.
 CC The invention relates to a new remedy for curing wounds which, instead
 CC of comprising a growth factor, comprises a monocyte chemotactic
 CC activating factor (MCAF) or its variants or derivatives. The factor has
 CC potent effect on skin wounds and ulcers. The present sequence is human
 CC MCAF, the activity of which is exemplified as the new remedy.
 SQ Sequence 76 AA;
 Query Match 100.0%; Score 84; DB 15; Length 76;
 Best Local Similarity 100.0%; Pred. No. 6.67e-02;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 DB 52 cadpkrkvwg 61
 |||||||
 QY 1 CADPKRKWVQ 10
 RESULT 7
 ID R53398 standard: Protein; 76 AA.
 AC R53398;
 DT 15-DEC-1994 (first entry)
 DE Sense MCP-1
 KM Antisense; RNA; DNA; monocyte chemotactic protein-1; MCP-1;
 KM radionuclide; vascular restenosis; alpha; beta; emitting isotope;
 KM diagnosis; monocytes; vascular injury.
 OS Mammalian.
 FH Key
 FT misc_difference 1
 FT Location/Qualifiers
 FT /note- "Unspecified amino acid"
 FT PN WO9409128-A.
 PD 28-APR-1994.
 PF 20-OCT-1993; U10074.
 PR 22-OCT-1992; US-965678.
 PA (MLCW) MALLINKRODT MEDICAL INC.
 PI Lyle LR;
 DR WPI: 94-151314/18.

PT Anti-sense monocyte chemotactic protein-1 oligo:nucleotide(s) and
 PT peptide(s) - is used for inhibiting, treating or imaging areas of
 PT Vascular restenosis or potential restenosis
 PS Disclosure; Page 5; 42pp; English.
 CC The sequences given in R53398-99 represent sense and antisense
 CC monocyte chemotactic protein-1 (MCP-1) respectively. These
 CC oligonucleotides may be labelled with a radionuclide and use
 CC therapeutically for the treatment of vascular restenosis.
 CC Radiolabelled antisense MCP-1 compounds may be constructed using high
 CC energy alpha or beta emitting isotopes rather than the gamma
 CC emitters customarily used for diagnostic purposes. Antisense MCP-1
 CC compounds inactivate MCP-1 or inhibit production of MCP-1 so that
 CC monocytes are not attracted to the area of vascular injury and
 CC proliferation of vascular cells is inhibited.
 SQ Sequence 76 AA;

Query Match 100.0%; Score 84; DB 10; Length 76;
 Best Local Similarity 100.0%; Pred. No. 6.67e-02;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 52 cadpkqkwwq 61
 |||||
 QY 1 CADPKQKWWQ 10

RESULT 8
 ID R28660 standard; Protein: 76 AA.
 AC R28660;
 DT 24-MAR-1993 (first entry)
 DE MCF.
 KW Plasmid; monocyte chemotactic factor; MCF; translation;
 KW termination; terminator; initiation; ribosome binding site;
 KW RBS; promoter; cryptophan; repressor.
 OS Synthetic.
 PN WO9219737-A.
 PD 12-NOV-1992.
 PF 27-APR-1992; J00550.
 PR 09-MAY-1991; JP-135950.
 PA (DAIN) DAINIPPON PHARM CO LTD.
 PI Fukui T, Matsuo N, Yamada M, Yamagishi J;
 DR N-PSDB; 030745-46.
 DR N-PSDB; 030745-46.
 PT Prodn. of polypeptide(s) having monocyte chemotactic activity -
 PT using expression plasmids with E. coli elements and specific
 PT E.coli strains
 PS Claim 1; Page 48 + Page 36; 56pp; English.
 CC An expression plasmid, pHM483, for producing MCF(76) consisting
 CC of 76 amino acids was constructed. The prod. can be used for e.g.
 CC treating bacterial infectious diseases.
 SQ Sequence 76 AA;

Query Match 100.0%; Score 84; DB 5; Length 76;
 Best Local Similarity 100.0%; Pred. No. 6.67e-02;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 52 cadpkqkwwq 61
 |||||
 QY 1 CADPKQKWWQ 10

RESULT 9
 ID R87677 standard; protein: 76 AA.
 AC R87677;
 DT 21-FEB-1996 (first entry)
 DE (3-Ala) MCP-1.
 KW monocyte chemotactant protein; MCP-1; mutant; restenosis;
 KW angioplasty.
 OS Homo sapiens.
 FH Key Location/Qualifiers
 FT modified_site 3
 FT disulfide_bond 11..36
 FT disulfide_bond 12..52

PN M09513295-A1.
 PD 18-MAY-1993.
 PF 07-NOV-1994; U12874.
 PR 12-NOV-1993; US-152301.
 PA (DAND) DANA FARBER CANCER INST INC.
 PI Rollins B, Zhang YJ;
 DR WPI; 95-215051/28.
 PT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
 PT capable of inhibiting the monocyte chemo-attractant activity of
 PT endogenous MCP-1 and can be used to treat restenosis
 PS Claim 6; Page 11; 22pp; English.
 CC Monocyte chemotactant protein-1 (MCP-1) derivatives are mutated such
 CC that they inhibit the monocyte chemotactant activity of endogenous
 CC MCP-1, provided that the derivative has not been modified by the
 CC substitution of 28-tyr by leu and/or 30-Arg by Val. Preferred mutations
 CC are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg
 CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
 CC acids 2-8. The present sequence is a specifically claimed human MCP-1
 CC derivative based on the parent protein disclosed in Rollins Molecular
 CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
 CC The peptides can be used to prevent restenosis, e.g. in patients
 CC undergoing coronary artery angioplasty.
 SQ Sequence 76 AA;

Query Match 100.0%; Score 84; DB 14; Length 76;
 Best Local Similarity 100.0%; Pred. No. 6.67e-02;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 52 cadpkqkwwq 61
 |||||
 QY 1 CADPKQKWWQ 10

RESULT 10
 ID W09374 standard; Protein: 76 AA.
 AC W09374;
 DT 21-MAR-1997 (first entry)
 DE Monocyte chemotactic protein 1.
 KW Human; monocyte chemotactant protein; antisense; inhibition;
 KW mononuclear cell; lymphocyte; macrophage; smooth muscle cell;
 KW Vascular restenosis.
 OS Homo sapiens.
 FH Key Location/Qualifiers
 FT misc_difference 1 /note= "encoded by codon CAG"
 FT misc_difference 51 /note= "encoded by codon AUG"
 FT misc_difference 65 /note= "encoded by codon CAC"
 FT FT
 PN US5571713-A.
 PD 05-NOV-1996.
 PF 22-OCT-1992; 965678.
 PR 22-OCT-1992; US-965678.
 PR 27-MAY-1994; US-250958.
 PA (UNMI) UNIV MICHIGAN.
 PI Kunkel SL, Lyle LR, Strieter RM;
 DR WPI; 96-505405/50.
 DR N-PSDB; T48092.
 PT Anti-sense Monocyte Chemotactic Protein-1 oligo:nucleotide(s) -
 PT useful for therapy or diagnosis of restenosis, etc.
 PS Disclosure; Column 13-14; 16pp; English.
 CC This is the amino acid sequence of the human monocyte chemotactant
 CC protein (MCP)-1, a member of the C-C chemokine family. MCP-1 is a potent
 CC stimulator of monocyte chemotaxis and is produced by injured vascular
 CC smooth cells thus attracting monocytes and macrophages which infiltrate
 CC the injured area and release growth factor. This causes proliferation of
 CC the vascular smooth cells resulting in restenosis. The gene sequence can
 CC be used to generate antisense sequences e.g. T48093-7, which can be used
 CC to inhibit in vitro MCP-1 prodn. by mononuclear cells e.g. lymphocytes or
 CC macrophages, or smooth muscle cells, esp. in order to prevent vascular
 CC restenosis.
 SQ Sequence 76 AA;

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Query Match          100.0%; Score 84; DB 20; Length 76;
Best Local Similarity 100.0%; Pred. No. 6.67e-02;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 52 cadpkqkwyg 61
|||||
QY 1 CADPKQKRWQ 10

RESULT 11
ID W1131 standard; protein: 76 AA.
AC W1131:
DE 10-JUN-1997 (first entry)
DE Mature human monocyte chemoattractant protein-1 (MCP-1).
KW MCP-1; mature chemoattractant protein-1; cytokine; interleukin-8;
KW IL-8; neutrophil activating peptide; labelling; imaging; targeting;
KW radionuclide; infection; inflammation; neoplasm; atheromatous lesion;
KW restenosis.
OS Homo sapiens.
PI Key Location/Qualifiers
PI misc_difference 1 /note="X- any amino acid"
FT US5605671-A.
PD 25-FEB-1997.
PR 05-OCT-1992; 956862.
PR 05-OCT-1992; US-956863.
PR 05-OCT-1992; US-956862.
PR 29-APR-1994; US-235659.
PA (MLCW ) MALLINCKRODT MEDICAL INC.
PA (UNMI ) UNIV MICHIGAN.
PI Kunkel SL, Lyle LR, Strieter RM;
PI WPI: 97-153541/14.
DE Radio:labelling neutrophil-activating peptide(s) - for imaging
DE targeted delivery of radioactive agent
PS Example 10: Column 19-20: 15pp; English.
CC W1131 represents mature human monocyte chemoattractant protein-1
CC (MCP-1). MCP-1 was radionuclide labelled and used in a method for
CC imaging a target site in vivo in an animal. Labelled MCP-1 was allowed
CC to accumulate at a target site (having MCP-1 receptors) in the animal
CC and detected so as to image the target site. Any Cys-Cys or Cys-Xaa-Cys
CC chemokine carrying either iodine-123 or iodine-131 can be used in the
CC method. Especially preferred is neutrophil activating peptide-2 (NAP-2)
CC which recognises interleukin-8 receptors and is labelled with
CC technetium-99m, indium-111, copper-62, thulium-186 or rhodium-188.
CC The method can be used for imaging a site of infection, inflammation,
CC neoplasm, atheromatous lesion or restenosis.
SQ Sequence 76 AA;

Query Match          100.0%; Score 84; DB 21; Length 76;
Best Local Similarity 100.0%; Pred. No. 6.67e-02;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 52 cadpkqkwyg 61
|||||
QY 1 CADPKQKRWQ 10

RESULT 12
ID R87675 standard; protein: 76 AA.
AC R87675:
DE 21-FEB-1996 (first entry)
DE (28-ASP) MCP-1.
KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
KW angioplasty.
OS Homo sapiens.
PI Key Location/Qualifiers
PI modified_site 28 /note="Tyr in the native sequence is replaced by Asp"
FT disulfide_bond 11..36
FT disulfide_bond 12..52
PD W09513295-A1.
PD 18-MAY-1995.
PD 07-NOV-1994; U12874.

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PR 12-NOV-1993; US-152301.
PA (DAND ) DANA FARBER CANCER INST INC.
PI Rollins B, Zhang YJ;
PI WPI: 95-215051/28.
DE Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
DE capable of inhibiting the monocyte chemo-attractant activity of
DE endogenous MCP-1 and can be used to treat restenosis
PS Claim 3; Page 11; 22pp; English.
CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
CC that they inhibit the monocyte chemoattractant activity of endogenous
CC MCP-1, provided that the derivative has not been modified by the
CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
CC are: (1) substitution of 28-Tyr by aspartate; (2) substitution of 24 Arg
CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
CC acids 2-8. The present sequence is a specifically claimed human MCP-1
CC derivative based on the parent protein disclosed in Rollins, Molecular
CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC The peptides can be used to prevent restenosis, e.g. in patients
CC undergoing coronary artery angioplasty.
SQ Sequence 76 AA;

Query Match          100.0%; Score 84; DB 14; Length 76;
Best Local Similarity 100.0%; Pred. No. 6.67e-02;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 52 cadpkqkwyg 61
|||||
QY 1 CADPKQKRWQ 10

RESULT 13
ID P90292 standard; peptide: 76 AA.
AC P90292:
DE 17-JAN-1990 (first entry)
DE Peptide from human glioma cell line U-105MG.
KW Glioma; leucocyte; chemotaxis; neoplasms.
OS Human.
PI Key Location/Qualifiers
PI modified_site 1 /label="OTHER
PI /note="pyroglutamic acid"
FT US7304234-A.
PD 20-JUL-1989.
PR 31-JAN-1989; 030423.
PR 31-JAN-1989; US-304234.
PA (USSH) US Dept. of Health and Human.
PI Yoshimura T; Robinson E; Appella E; Leonard E.
PI WPI: 89-263501/36.
DE New peptide with specific chemotactic activity for monocytes - isolated
DE from glioma or leucocyte cells, useful for treating infections and
DE neoplasms.
PS Disclosure, page 3; 46pp; English.
CC Peptide is derived from glioma cell line U-105MG (ATCC CRL9392) or from
CC leukocytes and has mol. wt. 8400. Used to treat infections and neoplasms.
SQ Sequence 76 AA;

Query Match          100.0%; Score 84; DB 1; Length 76;
Best Local Similarity 100.0%; Pred. No. 6.67e-02;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 52 cadpkqkwyg 61
|||||
QY 1 CADPKQKRWQ 10

RESULT 14
ID R26580 standard; protein: 76 AA.
AC R26580:
DE 28-JAN-1993 (first entry)
DE Sequence of bovine P6 protein.
KW Monocyte chemoattractant; bovine P6-derivative; thrombosis; tumour;
KW inflammation therapy.
OS Bos taurus.

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PN DE4125251-C.
 PD 03-SEP-1992.
 PF 31-JUL-1991; 125251.
 PR 31-JUL-1991; DE-125251.
 PA (SCHA-) SCHAPER & BRUEMMER GMBH & CO KG.
 PI Gramm W, Lins E;
 PI WPI: 92-293438/36.
 PT Drug containing a bovine protein homologous to human MCP-1 - for
 PT treating inflammation, tumours, thrombosis, and immune reactions,
 PT also for diagnosis
 PS Claim 1; Page 3; 6pp; German.
 CC Poly(+)RNA from bull seminal vesicles was used to prepare a cDNA in
 CC the expression vector lambda gtl1. 1.5 x 10(5) cDNA clones were
 CC screened with a polyclonal anti-P6 antiserum of monospecific
 CC immunoglobulin G and six positives were identified. The insert of a
 CC suitable cDNA clone, pH42, was cloned into pUC18 and sequenced.
 CC pH42 encodes the 11,114 Da precursor of P6. It is called Monocyte
 CC Chemottractant (bmcp-1), which is a homologue of human (h)MCP-1.
 CC There is 72% overall AA sequence homology to hMCP-1 with the signal
 CC peptide showing 100% and the central region showing 89% homology.
 SQ Sequence 76 AA;

Query Match 100.0%; Score 84; DB 5; Length 76;
 Best Local Similarity 100.0%; Pred. No. 6,67e-02;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 52 cadpkxkwq 61
 1111111111
 Qy 1 CADPKQKMWQ 10

RESULT 15
 ID R87676 standard; protein; 76 AA.
 AC R87676;
 DT 21-FEB-1996 (first entry)
 DE (24-Arg) MCP-1.
 KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
 KW angioplasty.
 OS Homo sapiens.
 FH Key
 FT modified_site 24 Location/Qualifiers
 FT /note="Arg in the native sequence is replaced by Phe"
 FT disulfide bond 11..36
 FT disulfide bond 12..52
 PN W0513295-A1.
 PD 18-MAY-1995.
 PE 07-NOV-1994; U12874.
 PR 12-NOV-1993; US-152301.
 PA (DAND) DANA FARMER CANCER INST INC.
 PI Rollins B, Zhang YJ;
 PI WPI: 95-215051/28.
 DR Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
 PT capable of inhibiting the monocyte chemo-attractant activity of
 PT endogenous MCP-1 and can be used to treat restenosis
 PS Claim 5; Page 11; 22pp; English.
 CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
 CC that they inhibit the monocyte chemoattractant activity of endogenous
 CC MCP-1, provided that the derivative has not been modified by the
 CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
 CC are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg
 CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
 CC acids 2-8. The present sequence is a specifically claimed human MCP-1
 CC derivative based on the parent protein disclosed in Rollins, Molecular
 CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
 CC The peptides can be used to prevent restenosis, e.g. in patients
 CC undergoing coronary artery angioplasty.
 SQ Sequence 76 AA;

Query Match 100.0%; Score 84; DB 14; Length 76;
 Best Local Similarity 100.0%; Pred. No. 6,67e-02;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Db 52 cadpkxkwq 61

Qy 1111111111
 1 CADPKQKMWQ 10

RESULT 16
 ID R86859 standard; protein; 77 AA.
 AC R86859;
 DT 20-MAR-1996 (first entry)
 DE Mature MCP-1.
 KW Antisense; monocyte chemotactic protein-1; MCP-1;
 KW "C-C" family; chemoattractant cytokine; chemokine; stimulation;
 KW monocyte; chemotaxis; vascular smooth muscle cell; macrophage;
 KW proliferation; restenosis; balloon angioplasty.
 OS Homo sapiens.
 PN W09519167-A1.
 PD 20-JUL-1995.
 PE 13-JAN-1995; U00605.
 PR 14-JAN-1994; US-182917.
 PA (MCM) MALLINCKRODT MEDICAL INC.
 PI Lyle LR, Thomas-Miller B;
 PI WPI: 95-263703/34.
 DR N-PSDB: T03528.
 PT New antisense oligo:nucleotide(s) and peptide(s) for inhibiting
 PT restenosis - are directed against C-C family cytokine(s) such as
 PT monocyte chemotactic protein, opt. radio-labelled for therapy or
 PT imaging
 PS Disclosure; Page 5; 50pp; English.
 CC This sequence represents the mature form of monocyte chemotactic
 CC protein-1 (MCP-1). MCP-1 is a member of the "C-C" family of
 CC chemoattractant cytokines or chemokines. It is a potent stimulator
 CC of monocyte chemotaxis and has an extremely high degree of specificity
 CC for this cell type. MCP-1 is produced by injured vascular smooth muscle
 CC cells and attracts the monocytes and macrophages which infiltrate the
 CC area, releasing growth factors and resulting in proliferation of vascular
 CC smooth muscle and restenosis. Nucleic acid molecules which are antisense
 CC to the MCP-1 mRNA may be used to inhibit translation of MCP-1 and so may
 CC be useful for inhibiting vascular restenosis, partic. following balloon
 CC angioplasty or a related process. The molecule may be radiolabelled to
 CC increase its therapeutic effect or for imaging areas of potential
 CC restenosis.
 SQ Sequence 77 AA;

Query Match 100.0%; Score 84; DB 15; Length 77;
 Best Local Similarity 100.0%; Pred. No. 6,67e-02;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 53 cadpkxkwq 62
 1111111111
 Qy 1 CADPKQKMWQ 10

RESULT 17
 ID P95387 standard; protein; 99 AA.
 AC P95387;
 DT 25-JUL-1989 (first entry)
 DE Human monocyte chemo-attractant peptide-1.
 KW Human monocyte chemo-attractant peptide; inflammatory disease; neoplasms.
 OS Homo sapiens.
 FH Key
 FT Location/Qualifiers
 FT protein 24..99
 FT /product=MCP-1
 PN US7330446-A.
 PD 25-JUL-1989;
 PE 30-MAR-1989; 330446.
 PR 30-MAR-1989; US-330446.
 PA (USSH) US Dept. Health and Human.
 PI Yoshimura T, Robinson EA, Appella E, Leonard EJ;
 PI WPI: 89-300683/41.
 DR N-PSDB: N91337.
 PT Human derived monocyte chemo-attractant peptide prods. - obtd. from human
 PT glioma cell line U-105MG or peripheral blood mononuclear leukocytes.
 PS Disclosure; fig 2; 66pp; English.
 CC This is a human-derived monocyte chemo-attractant peptide (MCP-1) sequence

CC MCP-1 exhibits optimal chemotactic activity at a concn. of 1nM and has a
CC mol. mass of c.a. 8,400 D. MCP-1 can be used for treating infection eg
CC inflammatory disease, or for the control of neoplasms by accumulation of
CC monocytes at the site of the infection. The corresp. DNA is obtd. by
CC chemical syntheses, by screening reverse transcripts of mRNA from
CC purified blood leukocytes or cell cultures of eg U-373 MG or KMG-5.
SQ Sequence 99 AA;

Query Match 100.0%; Score 84; DB 2; Length 99;
Best Local Similarity 100.0%; Pred. No. 6.67e-02;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Db 75 cadpkqkvwg 84
QY 1 CADPKQKQWQ 10

RESULT 18
ID R70800 standard; Protein: 99 AA.

AC R70800.
DT 29-AUG-1995 (first entry)
DE Chemoattractant protein MCP-1.
KW MCP-1; chemoattractant; heparanase; heparin; heparan sulfate;
KW arthritis; restenosis; cancer; wound healing.
OS Homo sapiens.
PN WO9504158-A.
PD 09-FEB-1995.
PE 26-JUL-1994; U08207.
PR 29-JUL-1993; US-099866.
PR 13-OCT-1993; US-136117.
PA (UPJO.) UPJOHN CO.
PI Hoogerwerf AJ, Ledbetter SR;
DR WPI: 95-082239/11.
DR N-PSDB: Q85370.
PT Screening for cpds. with anti-heparanase activity - by detecting
PT inhibition of heparin or heparan sulphate degradation,
PT potentially useful for treating arthritis, restenosis, cancer.
PS Claim 13; Page 49; 60pp; English.
CC Purified heparanases, prepared under reducing conditions and
CC activated with transglutaminase, are given in R70786-804. Most
CC are prepared by reverse transcription of mRNA from activated human
CC leukocytes, then cloning of the cDNA into pVL1392 baculovirus
CC vector, and expression in Sf9 cells in the presence of reduced
CC glutathione and dithiothreitol.
SQ Sequence 99 AA;

Query Match 100.0%; Score 84; DB 13; Length 99;
Best Local Similarity 100.0%; Pred. No. 6.67e-02;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 75 cadpkqkvwg 84
QY 1 CADPKQKQWQ 10

RESULT 19
ID R26581 standard; Protein: 99 AA.

AC R26581.
DT 28-JAN-1993 (first entry)
DE Sequence of P6 precursor protein.
KW Monocyte chemoattractant; bovine P6-derivative; thrombosis; tumour;
KW Inflammation therapy.
OS Bos taurus.
FH Key
FT Peptide

Location/Qualifiers
1..23
/label= signal

DEA125251-C.
PD 03-SEP-1992.
PR 31-JUL-1991; 125251.
PR 31-JUL-1991; DE-125251.
PA (SCHA-) SCHAPER & BRUEMMER GMBH & CO KG.
PI Gramm W, Lins E;
DR WPI: 92-293438/36.

DR N-PSDB: Q27946.

PT Drug containing a bovine protein homologous to human MCP-1 - for
PT treating inflammation, tumours, thrombosis, and immune reactions,
PT also for diagnosis
PS Disclosure: Page 4; 6pp; German.
CC Poly(A+)-RNA from bull seminal vesicles was used to prepare a cDNA in
CC the expression vector lambda gt11. 1.5 x 10(5) cDNA clones were
CC screened with a polyclonal anti-P6 antiserum of monospecific
CC immunoglobulin G and six positives were identified. The insert of a
CC suitable cDNA clone, pH42, was cloned into pUC18 and sequenced.
CC pH42 encodes the 11,114 Da precursor of P6. It is called Monocyte
CC Chemoattractant (hMCP-1), which is a homologue of human (h)MCP-1.
CC There is 72% overall AA sequence homology to hMCP-1 with the signal
CC peptide showing 100% and the central region showing 88% homology.
SQ Sequence 99 AA;

Query Match 100.0%; Score 84; DB 5; Length 99;
Best Local Similarity 100.0%; Pred. No. 6.67e-02;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 75 cadpkqkvwg 84
QY 1 CADPKQKQWQ 10

RESULT 20
ID R28663 standard; Protein: 99 AA.

AC R28663.
DT 24-MAR-1993 (first entry)
DE MCF
KW Plasmid; monocyte chemotactic factor; MCF; translation;
KW termination; terminator; initiation; ribosome binding site;
KW RBS; promoter; tryptophan; repressor.
OS Synthetic.
FH Key
FT Peptide
FT 1..23
FT /label= sig_peptide
FT 24..99
FT /label= mat_protein
PN WO9219737-A.
PD 12-NOV-1992.
PE 27-APR-1992; J00550.
PR 09-MAY-1991; JP-135950.
PA (DAIN) DAINIPPON PHARM CO LTD.
PI Fukui T, Matsuo N, Yamada M, Yamagishi J;
DR WPI: 92-398864/48.
DR N-PSDB: Q30748.
PT Prodn. of polypeptide(s) having monocyte chemotactic activity -
PT using expression plasmids with E. coli elements and specific
PT E.coli strains
PS Disclosure: Page 43-44; 56pp; English.
CC An expression plasmid, pHMC076 for producing MCF(76) consisting
CC of 76 amino acids was constructed. DNA encoding MCF(76) was
CC prepd. using a recombinant plasmid pHMCF7.
SQ Sequence 99 AA;

Query Match 100.0%; Score 84; DB 5; Length 99;
Best Local Similarity 100.0%; Pred. No. 6.67e-02;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 75 cadpkqkvwg 84
QY 1 CADPKQKQWQ 10

RESULT 21
ID R73914 standard; Protein: 99 AA.

AC R73914.
DT 05-DEC-1995 (first entry)
DE Human monocyte chemoattractant factor hMCP-1.
KW Human monocyte chemoattractant factor; hMCP-1; chemokine; vaccine;
KW meningitis related homologous antigenic sequence; MRHAS; RV-1;
KW immunoassay; diagnosis; treatment; prophylactic; bacterial;

KW viral.
 OS Homo sapiens.
 PN W09509232-A.
 PD 06-APR-1995.
 PF 28-SEP-1994; CA0516.
 PR 28-SEP-1993; US-127499.
 PA (SHAR/) SHARMA L. R.
 PI (VALS/) VAN ALSTYNE D.
 PT Sharma LR, Van Alstyne D;
 DR WPI: 95-14743/19.
 PT New peptide(s) and corresp. antibodies for the treatment of
 PT meningitis - the peptide(s) corresp. to homologous antigenic
 PT sites on bacterial and viral agents and on chemokine(s), used for
 PT detecting and preventing meningitis
 PS Claim 47; Fig 8/10; 98pp. English.
 CC R73914 is the chemokine Human monocyte chemoattractant factor hMCP-1.
 CC It contains the meningitis related antigenic sequences (MRHAS) claimed
 CC in R73907, which are recognised by a monoclonal antibody
 CC from the hybridoma Rubella virus (RV)-1. The claimed MRHAS peptides
 CC may be used in immunoassays to diagnose the presence of bacterial
 CC and/or viral meningitis agents in a sample, or in prophylactic and
 CC therapeutic meningitis treatments. The peptides may also be used as
 CC vaccines against meningitis.
 CC NB: Identified by matching corresponding MRHAS peptides.
 SO Sequence 99 AA;

Query Match 100.0%; Score 84; DB 14; Length 99;
 Best Local Similarity 100.0%; Pred. No. 6.67e-02;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

DB 75 cadpkxkwg 84
 |||||
 QY 1 CADPKOKWQV 10

RESULT 22
 ID W2675 standard; Protein: 71 AA.
 AC W2675:
 DT 19-MAR-1998 (first entry)
 DE Drol3+ chemokine beta10 or monocyte chemotactic protein 4 variant.
 KW Human; chemokine beta10; Ck beta10; treatment; antagonist;
 KW solid tumour; infection; autoimmune disease; asthma; antibody;
 KW fibrotic disease; psoriasis; neurodegenerative disease;
 KW wound healing; haematopoiesis regulation; gene therapy;
 KW chromosome identification; monocyte chemotactic protein 4;
 KW leukaemia; MCP-4; Drol3+ variant.
 OS Homo sapiens.
 PN W09731098-A1.
 PD 28-AUG-1997.
 PF 23-FEB-1996; U02598.
 PR 23-FEB-1996; WO-U02598.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
 PI Parmelee D, White J;
 DR WPI: 97-435153/40.
 PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 PT protein 4 - useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis
 PS Example 11; Fig 5; 83pp. English.
 CC The present sequence is human chemokine beta10 (Ck beta10) or
 CC monocyte chemotactic protein 4 (MCP-4) Drol3+ variant, which can
 CC be used to treat patients deficient in Ck beta10, while a Ck beta10
 CC antagonist can be used to reduce excessive levels of Ck beta10. Ck
 CC beta10 can be used to treat leukaemia, solid tumours, chronic or
 CC opportunistic infections, autoimmune diseases, asthma, fibrotic
 CC diseases, psoriasis and neurodegenerative diseases. It also
 CC promotes wound healing, regulates haematopoiesis and generates
 CC antibodies. Labelled Ck beta10 can be used to identify its cognate
 CC receptor, while cells expressing the receptor can be used to screen
 CC compounds for (ant)agonist activity. The antagonist can be used to
 CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
 CC infectious diseases, allergies, sarcoidosis, hyper-eosinophilic
 CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
 CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic

CC syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can
 CC be used to isolate genes encoding similar peptides, in gene therapy
 CC and for chromosome identification.
 SQ Sequence 71 AA;

Query Match 95.2%; Score 80; DB 27; Length 71;
 Best Local Similarity 90.0%; Pred. No. 1.78e-01;
 Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

DB 47 cadpkxkwg 56
 |||||
 QY 1 CADPKOKWQV 10

RESULT 23
 ID W2673 standard; Protein: 75 AA.
 AC W2673:
 DT 19-MAR-1998 (first entry)
 DE Bac 3 chemokine beta10 or monocyte chemotactic protein 4 variant.
 KW Human; chemokine beta10; Ck beta10; treatment; antagonist;
 KW solid tumour; infection; autoimmune disease; asthma; antibody;
 KW fibrotic disease; psoriasis; neurodegenerative disease;
 KW wound healing; haematopoiesis regulation; gene therapy;
 KW chromosome identification; monocyte chemotactic protein 4;
 KW leukaemia; MCP-4; Bac 3 variant.
 OS Homo sapiens.
 PN W09731098-A1.
 PD 28-AUG-1997.
 PF 23-FEB-1996; U02598.
 PR 23-FEB-1996; WO-U02598.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
 PI Parmelee D, White J;
 DR WPI: 97-435153/40.
 PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 PT protein 4 - useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis
 PS Example 11; Fig 5; 83pp. English.
 CC The present sequence is human chemokine beta10 (Ck beta10) or
 CC monocyte chemotactic protein 4 (MCP-4) Bac 3 variant, which can be
 CC used to treat patients deficient in Ck beta10, while a Ck beta10
 CC antagonist can be used to reduce excessive levels of Ck beta10. Ck
 CC beta10 can be used to treat leukaemia, solid tumours, chronic or
 CC opportunistic infections, autoimmune diseases, asthma, fibrotic
 CC diseases, psoriasis and neurodegenerative diseases. It also
 CC promotes wound healing, regulates haematopoiesis and generates
 CC antibodies. Labelled Ck beta10 can be used to identify its cognate
 CC receptor, while cells expressing the receptor can be used to screen
 CC compounds for (ant)agonist activity. The antagonist can be used to
 CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
 CC infectious diseases, allergies, sarcoidosis, hyper-eosinophilic
 CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
 CC syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can
 CC be used to isolate genes encoding similar peptides, in gene therapy
 CC and for chromosome identification.
 SQ Sequence 75 AA;

Query Match 95.2%; Score 80; DB 27; Length 75;
 Best Local Similarity 90.0%; Pred. No. 1.78e-01;
 Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

DB 51 cadpkxkwg 60
 |||||
 QY 1 CADPKOKWQV 10

RESULT 24
 ID W2672 standard; Protein: 77 AA.
 AC W2672:
 DT 19-MAR-1998 (first entry)
 DE Bac 2 chemokine beta10 or monocyte chemotactic protein 4 variant.
 KW Human; chemokine beta10; Ck beta10; treatment; antagonist;
 KW solid tumour; infection; autoimmune disease; asthma; antibody;

KW fibrotic disease; psoriasis; neurodegenerative disease;
 KW wound healing; haematopoiesis regulation; gene therapy;
 KW leukaemia; MCP-4; Bac 2 variant.
 OS Homo sapiens.
 PN WO9731098-A1.
 PD 28-AUG-1997.
 PF 23-FEB-1996; WO02598.
 PR 23-FEB-1996; WO-02598.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
 PI Parmelee D, White J;
 DR WPI: 97-435153/40.
 PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 protein 4 - useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis
 PS Example 11: Fig 5; 83pp; English.
 CC The present sequence is human chemokine beta10 (Ck beta10) or
 CC monocyte chemotactic protein 4 (MCP-4) Bac 2 variant, which can be
 CC used to treat patients deficient in Ck beta10, while a Ck beta10
 CC antagonist can be used to reduce excessive levels of Ck beta10. Ck
 CC beta10 can be used to treat leukaemia, solid tumours, chronic or
 CC opportunistic infections, autoimmune diseases, asthma, fibrotic
 CC diseases, psoriasis and neurodegenerative diseases. It also
 CC promotes wound healing, regulates haematopoiesis and generates
 CC antibodies. Labelled Ck beta10 can be used to identify its cognate
 CC receptor, while cells expressing the receptor can be used to screen
 CC compounds for (ant)agonist activity. The antagonist can be used to
 CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
 CC infectious diseases, allergies, prostaglandin dependent fever and
 CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
 CC syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can
 CC be used to isolate genes encoding similar peptides, in gene therapy
 CC and for chromosome identification.
 SQ Sequence 77 AA;

Query Match 95.2%; Score 80; DB 27; Length 77;
 Best Local Similarity 90.0%; Pred. No. 1,78e-01;
 Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 53 cadpkexwq 62
 |||||:||||
 QY 1 CADPKOKWQ 10

RESULT 25
 ID W22674 standard; Protein: 79 AA.
 AC W22674:
 DT 19-MAR-1998 (first entry)
 DE Droll/2 chemokine beta10 or monocyte chemotactic protein 4 variant.
 KW Human; chemokine beta10; Ck beta10; treatment; antagonist;
 KW solid tumour; infection; autoimmune disease; asthma; antibody;
 KW fibrotic disease; psoriasis; neurodegenerative disease;
 KW wound healing; haematopoiesis regulation; gene therapy;
 KW chromosome identification; monocyte chemotactic protein 4;
 KW leukaemia; MCP-4; Droll/2 variant.
 OS Homo sapiens.
 PN WO9731098-A1.
 PD 28-AUG-1997.
 PF 23-FEB-1996; WO02598.
 PR 23-FEB-1996; WO-02598.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
 PI Parmelee D, White J;
 DR WPI: 97-435153/40.
 PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 protein 4 - useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis
 PS Example 11: Fig 5; 83pp; English.
 CC The present sequence is human chemokine beta10 (Ck beta10) or
 CC monocyte chemotactic protein 4 (MCP-4) Droll/2 variant, which can
 CC be used to treat patients deficient in Ck beta10, while a Ck beta10
 CC antagonist can be used to reduce excessive levels of Ck beta10. Ck

CC beta10 can be used to treat leukaemia, solid tumours, chronic or
 CC opportunistic infections, autoimmune diseases, asthma, fibrotic
 CC diseases, psoriasis and neurodegenerative diseases. It also
 CC promotes wound healing, regulates haematopoiesis and generates
 CC antibodies. Labelled Ck beta10 can be used to identify its cognate
 CC receptor, while cells expressing the receptor can be used to screen
 CC compounds for (ant)agonist activity. The antagonist can be used to
 CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
 CC infectious diseases, allergies, prostaglandin dependent fever and
 CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
 CC syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can
 CC be used to isolate genes encoding similar peptides, in gene therapy
 CC and for chromosome identification.
 SQ Sequence 79 AA;

Query Match 95.2%; Score 80; DB 27; Length 79;
 Best Local Similarity 90.0%; Pred. No. 1,78e-01;
 Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 55 cadpkexwq 64
 |||||:||||
 QY 1 CADPKOKWQ 10

RESULT 26
 ID W22671 standard; Protein: 82 AA.
 AC W22671:
 DT 19-MAR-1998 (first entry)
 DE Bac 1 chemokine beta10 or monocyte chemotactic protein 4 variant.
 KW Human; chemokine beta10; Ck beta10; treatment; antagonist;
 KW solid tumour; infection; autoimmune disease; asthma; antibody;
 KW fibrotic disease; psoriasis; neurodegenerative disease;
 KW wound healing; haematopoiesis regulation; gene therapy;
 KW chromosome identification; monocyte chemotactic protein 4;
 KW leukaemia; MCP-4; Bac 1 variant.
 OS Homo sapiens.
 PN WO9731098-A1.
 PD 28-AUG-1997.
 PF 23-FEB-1996; WO02598.
 PR 23-FEB-1996; WO-02598.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
 PI Parmelee D, White J;
 DR WPI: 97-435153/40.
 PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 protein 4 - useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis
 PS Example 11: Fig 5; 83pp; English.
 CC The present sequence is human chemokine beta10 (Ck beta10) or
 CC monocyte chemotactic protein 4 (MCP-4) Bac 1 variant, which can be
 CC used to treat patients deficient in Ck beta10, while a Ck beta10
 CC antagonist can be used to reduce excessive levels of Ck beta10. Ck
 CC beta10 can be used to treat leukaemia, solid tumours, chronic or
 CC opportunistic infections, autoimmune diseases, asthma, fibrotic
 CC diseases, psoriasis and neurodegenerative diseases. It also
 CC promotes wound healing, regulates haematopoiesis and generates
 CC antibodies. Labelled Ck beta10 can be used to identify its cognate
 CC receptor, while cells expressing the receptor can be used to screen
 CC compounds for (ant)agonist activity. The antagonist can be used to
 CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
 CC infectious diseases, allergies, prostaglandin dependent fever and
 CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
 CC syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can
 CC be used to isolate genes encoding similar peptides, in gene therapy
 CC and for chromosome identification.
 SQ Sequence 82 AA;

Query Match 95.2%; Score 80; DB 27; Length 82;
 Best Local Similarity 90.0%; Pred. No. 1,78e-01;
 Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 58 cadpkexwq 67
 |||||:||||

OY 1 CADPKOKWQ 10

RESULT 27

ID W17665 standard; peptide: 82 AA.

AC W17665:

DE 16-DEC-1997 (first entry)

DM Stem cell mobilising chemokine CXbeta-10.

KM Haematopoietic cell; parasitic infection; colony stimulating factor; haematoregulator; immune response; bacterial infection; transplant; wound healing; bone marrow; immunosuppression; regeneration;

KW neoplastic disease; viral disease; gene therapy; cytotoxic drug.

OS Synthetic.

PN W09715594-A1.

PD 01-MAY-1997.

PF 23-OCT-1996; U16959.

PR 24-OCT-1995; US-006051.

PA (SMK) SMITHKLINE BEECHAM CORP.

PI Kreider BL, Li H, Pelus L, White JR;

PI WPI: 97-258956/23.

PT Ten new chemokine(s) able to mobilise stem cells - used where increased levels of haematopoietic cells are required, e.g. to increase resistance to infection

PS Claim 7: Page 11-12: 24pp: English.

CC The present sequence represents a chemokine, CXbeta-10, which is capable of mobilising stem cells. The chemokine can be used therapeutically to improve stem cell mobilisation, optionally together with a colony stimulating factor or other haematoregulatory agent. It can be used wherever an increased level of haematopoietic cells is needed, e.g. to increase the immune response to chronic infection (particularly bacterial or parasitic), to promote wound healing, in (transplant) patients with reduced bone marrow function as a result of immunosuppressive treatment or disease, and to provide more rapid regeneration of bone marrow after treatment for neoplastic or viral diseases. The induced stem cells may be harvested for subsequent return to the patient, optionally after they have been genetically manipulated to deliver a selected gene product (gene therapy). The cells may be co-administered with a cytotoxic drug.

CC Sequence 82 AA:

Query Match 95.2%; Score 80; DB 24; Length 82; Best Local Similarity 90.0%; Pred. No. 1.78e-01;

Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 58 cadpkexwq 67

OY 1 CADPKOKWQ 10

RESULT 28

ID W30191 standard; Protein: 98 AA.

AC W30191:

DE 21-MAY-1998 (first entry)

DM Monocyte chemotactic protein 5.

KW Monocyte chemotactic protein 5; MCP-5; human; macrophage; chemokine; inhibitor; antiinflammatory; atherosclerosis; Crome's disease; arthritis; angiogenesis; tumour; metastasis; therapy; diagnosis; medical imaging.

OS Homo sapiens.

PN Key

FT Peptide 1.23 Location/Qualifiers

FT Protein 24..98 /label= Sig-peptide

FT /label= Mat-protein

FT /note= "(Claim 4)"

PN W09735982-A2.

PD 02-OCT-1997.

PF 26-MAR-1997; U04898.

PR 27-MAR-1996; US-622851.

PA (ICOS) ICOS CORP.

PI Godiska R, Gray PW;

PI WPI: 97-489645/45.

DR N-PSDB: T90880.

PT Polynucleotide encoding monocyte chemotactic protein-5 - useful in treatment of e.g. inflammation, atherosclerosis, angiogenesis and tumours

PS Claim 1: Page 36-37: 47pp: English.

CC This polypeptide comprises human macrophage-derived monocyte chemotactic protein-5 (MCP-5), a novel C-C chemokine. Its amino acid sequence was deduced from a cDNA clone (see T90880 and T90883) isolated from a human macrophage cDNA library. A claimed method for producing MCP-5 comprises culturing a host cell that is stably transformed or transfected with MCP-5 polynucleotide. Also claimed is a hybridoma that produces a monoclonal antibody (MAb) that is specifically reactive with the mature MCP-5. MCP-5 (or its analogues and fragments) is used to enhance the immune response in cases of wounds or infections, while its inhibitors (e.g. the MAb) are useful as anti-inflammatories in cases of e.g. arthritis and Crohn's disease, also for treatment of atherosclerosis, angiogenesis and tumour growth (or metastasis). The MCP-5 inhibitors can possibly also be used to reduce the damaging effects of chemo- and radio-therapy on myeloid progenitor cells, and to inhibit replication of HIV. MCP-5 can also be used to identify its cognate receptor, while MCP-5 peptides (or the analogues or receptors) are used to modulate MCP-5 activity and to identify MCP-5 agonists and antagonists.

CC Sequence 98 AA:

Query Match 95.2%; Score 80; DB 28; Length 98; Best Local Similarity 90.0%; Pred. No. 1.78e-01;

Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 74 cadpkexwq 83

OY 1 CADPKOKWQ 10

RESULT 29

ID R93087 standard; Protein: 98 AA.

AC R93087:

DE 27-AUG-1996 (first entry)

DM Human chemokine beta-10.

KW Chemokine beta-10; chemokine beta-4; CK beta-10; CK beta-4; cytokine; leukaemia; tumour; cancer; autoimmune disease; psoriasis; asthma; allergy; wound healing; diagnosis; therapy.

OS Homo sapiens.

PN Key

FT Peptide 1.23 Location/Qualifiers

FT Protein 25..98 /label= Sig-peptide

FT /label= Mat-protein

PN W09605856-A1.

PD 29-FEB-1996.

PF 23-AUG-1994; U09484.

PR 23-AUG-1994; WO-009484.

PR 08-SEP-1994; ZA-006936.

PA (HUMA-) HUMAN GENOME SCI INC.

PI Adams MD, Li H;

PI WPI: 96-151145/15.

DR N-PSDB: T17050.

PT New chemokine CK(beta)-4 and -10 genes and polypeptide(s) - useful to treat, e.g. leukaemia, solid tumours and auto-immune diseases

PS Claim 19: Fig 2; 53pp: English.

CC A novel human chemokine, CK beta-10 (R93087), was identified as the product of a cDNA clone (T17050) isolated from a 9-wk early human tissue cDNA library. The protein is structurally related to the chemokine family. Recombinant CK beta-10 can be obtained by incorporating the cDNA into a vector and expression of the protein in e.g. E. coli, COS or Sf9 cells. CK beta-10 can be used to treat solid tumours, chronic infections, psoriasis, asthma and allergy, to regulate haematopoiesis, promote wound healing, and to inhibit angiogenesis. It can also be used to inhibit bone marrow stem cell colony formn. during chemotherapy.

CC Sequence 98 AA:

Query Match

95.2%; Score 80; DB 17; Length 98;

Best Local Similarity 90.0%; Pred. No. 1.78e-01;

Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 74 cadpkexwvq 83
 |||||:||||
 QY 1 CADPKOKWVQ 10

RESULT 30

ID W22670 standard; Protein; 98 AA.

AC W22670;

DI 19-MAR-1998 (first entry)

DE Human chemokine beta10 or monocyte chemotactic protein 4.

KW Human; chemokine beta10; CK beta10; treatment; antagonist;

KW solid tumour; infection; autoimmune disease; asthma; antibody;

KW fibrotic disease; psoriasis; neurodegenerative disease;

KW wound healing; haematopoiesis regulation; gene therapy;

KW chromosome identification; monocyte chemotactic protein 4;

KW Leukaemia: MCP-4.

OS Homo sapiens.

FH Key Location/Qualifiers

FT Peptide 1..23

FT Peptide /label= sig_peptide

FT Peptide 24..98

FT Peptide /label= mat_peptide

FN W09731098-A1.

PD 28-AUG-1997.

PR 23-FEB-1996; U02598.

PR 23-FEB-1996; WO-U02598.

PA (HUMA-) HUMAN GENOME SCI INC.

PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,

PI Parmelee D, White J;

DR N-PSDB; T85029.

PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic

PT protein 4 - useful to treat tumours, autoimmune disease, infection,

PT asthma and fibrosis

PS Clam 1; Fig 2; 83pp; English.

CC The present sequence is human chemokine beta10 (CK beta10) or

CC monocyte chemotactic protein 4 (MCP-4), which can be used to treat

CC patients deficient in CK beta10, while a CK beta10 antagonist can

CC be used to reduce excessive levels of CK beta10. CK beta10 can be

CC used to treat leukaemia, solid tumours, chronic or opportunistic

CC infections, autoimmune diseases, asthma, fibrotic diseases,

CC psoriasis and neurodegenerative diseases. It also promotes wound

CC healing, regulates haematopoiesis and generates antibodies.

CC Labelled CK beta10 can be used to identify its cognate receptor.

CC while cells expressing the receptor can be used to screen compounds

CC for (ant)agonist activity. The antagonist can be used to treat

CC Rheumatoid arthritis, autoimmune, chronic inflammatory or

CC infectious diseases, allergies, prostaglandin dependent fever and

CC bone marrow failure, sarcoidosis, hyper-eosinophilic

CC syndrome, lung inflammation and atherosclerosis. CK beta10 cDNA can

CC be used to isolate genes encoding similar peptides, in gene therapy

CC and for chromosome identification.

SQ Sequence 98 AA;

Query Match 95.2%; Score 80; DB 27; Length 98;

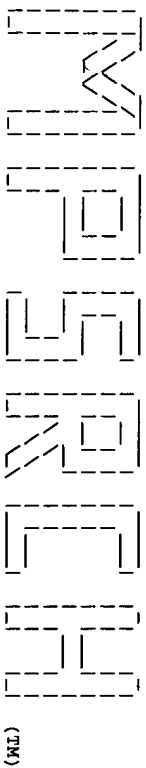
Best Local Similarity 90.0%; Pred. No. 1.78e-01;

Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 74 cadpkexwvq 83
 |||||:||||
 QY 1 CADPKOKWVQ 10

Search completed: Thu Apr 1 07:28:12 1999
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(TM)

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Msrch_pp protein - protein database search, using Smith-Waterman algorithm

Run on: Thu Apr 1 07:27:19 1999; MasPar time 3.21 Seconds
116.648 Million cell updates/sec

Tabular output not generated.

Title: >US-08-927-939-7
Description: (1-10) from US08927939.pep
Perfect Score: 84
Sequence: 1 CADPKQKWVQ 10

Scoring table: PAM 150
Gap 15

Searched: 116738 segs, 37463448 residues

Post-processing: Minimum Match 0%
Listing first 100 summaries

Database: p1r58
1:p1r1 2:p1r2 3:p1r3 4:p1r4

Statistics: Mean 23.912; Variance 35.812; scale 0.668

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description	Pred. No.
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2	84	100.0	99	2	A39296	8.66e-06
3	84	100.0	99	2	JC2336	8.66e-06
4	84	100.0	125	2	I46857	8.66e-06
5	83	98.8	99	2	JC2136	1.42e-05
6	77	91.7	96	2	JC2136	1.42e-05
7	77	91.7	96	2	I48099	2.60e-04
8	77	91.7	96	2	JC2478	2.60e-04
9	77	91.7	99	2	JC2417	2.60e-04
10	77	91.7	109	2	A5678	2.60e-04
11	74	88.1	120	2	I48147	2.60e-04
12	73	86.9	92	2	JC4912	1.08e-03
13	73	86.9	95	2	I52322	1.73e-03
14	73	86.9	95	2	JN0841	1.73e-03
15	73	86.9	101	2	I4697	1.73e-03
16	73	86.9	101	2	I4697	1.73e-03
17	73	86.9	103	2	S42496	1.73e-03
18	73	86.9	103	2	A44253	1.73e-03
19	71	84.5	103	2	A53096	1.73e-03
20	70	83.3	101	2	JC5295	4.39e-03
21	69	82.1	148	2	I48148	6.96e-03
22	67	79.8	89	2	A30209	1.10e-02
23	67	79.8	89	2	I53416	2.73e-02

24	67	79.8	93	2	G01540	cytokine SDF-1-beta -	2.73e-02
25	67	79.8	93	2	I81182	cytokine - mouse	2.73e-02
26	67	79.8	99	2	A37034	interleukin-8 precurs	2.73e-02
27	66	78.6	91	1	A46539	monocyte chemoattract	4.28e-02
28	66	78.6	92	2	A32393	macrophage inflammatory	4.28e-02
29	64	76.2	50	2	C60407	monocyte adherence-in	1.04e-01
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33	63	75.0	148	2	S07723	immediate-early serum	1.62e-01
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35	61	72.6	114	1	ETM81	lymphotactin precurs	3.86e-01
36	60	71.4	91	1	A28815	monocyte chemoattract	5.93e-01
37	60	71.4	117	1	S57175	hypothetical protein	5.93e-01
38	59	70.2	180	2	JE0177	lymphocyte and monocy	9.07e-01
39	59	70.2	187	2	C71317	hypothetical protein	9.07e-01
40	58	69.0	1053	2	D71466	probable ribonuclease	1.38e+00
41	57	67.9	97	2	A48093	monocytic cytokine FI	2.10e+00
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44	55	65.5	145	2	S76877	hypothetical protein	4.77e+00
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46	53	63.1	140	1	MMVZM3	Hm3 protein - sheep p	1.07e+01
47	53	63.1	1432	2	B71437	probable resistance g	1.07e+01
48	52	61.9	92	2	C30552	macrophage inflammatory	1.58e+01
49	52	61.9	103	2	I50417	RSV-induced protein -	1.58e+01
50	52	61.9	103	2	A26736	transformation-induce	1.58e+01
51	52	61.9	108	2	G70567	N-terminus of IS6110	1.58e+01
52	52	61.9	108	2	A60340	hypothetical protein	1.58e+01
53	52	61.9	1872	2	JC4976	plexin 3 - mouse	1.58e+01
54	51	60.7	116	2	I49555	gene C10 protein - mo	2.34e+01
55	51	60.7	176	2	G65065	hypothetical protein	2.34e+01
56	51	60.7	188	2	JH0661	amine dehydrogenase (	2.34e+01
57	51	60.7	389	2	E71113	probable nonspecific	2.34e+01
58	51	60.7	627	2	C69637	DNA gyrase-like prote	2.34e+01
59	51	60.7	760	2	S55520	Chitin synthetase I -	2.34e+01
60	51	60.7	825	2	S75173	hypothetical protein	2.34e+01
61	51	60.7	1038	2	A71437	probable resistance g	2.34e+01
62	50	59.5	85	2	C35387	regulatory protein ko	3.43e+01
63	50	59.5	92	2	S24236	TCA3 protein - mouse	3.43e+01
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66	50	59.5	283	2	S10773	2-hydroxymuconic semi	3.43e+01
67	50	59.5	332	2	H69494	pyruvate formate-lyas	3.43e+01
68	50	59.5	467	2	S61141	probable membrane pro	3.43e+01
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70	50	59.5	491	2	S48827	1-aminocyclopropane-1	3.43e+01
71	50	59.5	828	2	S52393	beta-galactosidase (E	3.43e+01
72	49	58.3	231	2	S20455	pqqc protein - Klebsi	5.02e+01
73	49	58.3	273	2	B31479	env polyprotein - K1ebsi	5.02e+01
74	49	58.3	324	2	S43424	zipper containing pro	5.02e+01
75	49	58.3	376	2	B64751	YKfC protein - Escher	5.02e+01
76	49	58.3	477	2	F71436	hypothetical protein	5.02e+01
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78	49	58.3	532	2	S27373	beta-fructofuranosida	5.02e+01
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80	49	58.3	582	2	S53814	DEAD box protein - sl	5.02e+01
81	49	58.3	662	2	A25982	env polyprotein - fel	5.02e+01
82	49	58.3	662	1	VCWVLB	env polyprotein - fel	5.02e+01
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85	49	58.3	766	2	G71437	probable resistance g	5.02e+01
86	49	58.3	1032	2	A57514	RNA helicase HELL17 -	5.02e+01
87	49	58.3	1256	2	C71436	probable resistance g	5.02e+01
88	49	58.3	1675	1	LRHR	clathrin heavy chain	5.02e+01
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90	49	58.3	26926	1	I38344	titin, cardiac muscle	5.02e+01
91	48	57.1	281	1	A47629	cell surface glycopro	7.30e+01
92	48	57.1	353	2	B53250	class I histocompatib	7.30e+01
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96	48	57.1	534	1	VCWMSF	env polyprotein - fel	7.30e+01

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ALIGNMENTS

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ENTRY A60299 #type complete
TITLE monocytic chemotactic protein 1 precursor - human
ALTERNATE_NAMES MCP-1; glioma-derived monocytic chemotactic factor 1; MCAF; MCP-1; monocytic chemotactic factor 1; monocytic secretory protein; tumor-derived chemotactic factor
CONTAINS glioma-derived chemotactic factor 2 (GDCF-2)
ORGANISM #formal_name Homo sapiens #common_name man
DATE 20-Feb-1993 #sequence_revision 20-Feb-1993 #text_change 20-Mar-1998

ACCESSIONS
A35474; A33476; S03339; I51841; A60299; A32300; A32396;
A34561; I57488; JC1096

REFERENCE
#authors Yoshimura, T.; Yuhki, N.; Moore, S.K.; Appella, E.; Lerman, M.J.; Leonard, E.J.
#journal J. Biol. Chem. (1990) 265:16934-16940
#title The human homolog of the JE gene encodes a monocytic secretory protein.
#cross-references MIM:90097880
#accession A33476
#molecule_type mRNA
#residues 1-99 #label SHY
#cross-references GB:M37719; NID:g187447; PID:g487124

REFERENCE
#authors Rollins, B.J.; Stier, P.; Ernst, T.; Wong, G.G.
#journal Mol. Cell. Biol. (1989) 9:4687-4693
#title The human homolog of the JE gene encodes a monocytic secretory protein.
#cross-references MIM:90097880
#accession A33476
#molecule_type mRNA
#residues 1-99 #label ROL
#cross-references GB:M30816; GB:M31625; GB:M31626; NID:g188701; PID:g386961

REFERENCE
#authors S03339
#journal Yoshimura, T.; Yuhki, N.; Moore, S.K.; Appella, E.; Lerman, M.J.; Leonard, E.J.
#journal FASEB Lett. (1989) 244:487-493
#title Human monocytic chemotactic protein-1 (MCP-1). Full-length cDNA cloning, expression in mitogen-stimulated blood mononuclear leukocytes, and sequence similarity to mouse competence gene JE.
#cross-references MIM:89153605
#accession S03339
#status not compared with conceptual translation
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#residues 1-99 #label YOS
#cross-references GB:X14768; NID:g34513; PID:g34514
#experimental_source glioma cell line U-105MC

REFERENCE
#authors Yoshimura, T.; Leonard, E.J.
#journal Adv. Exp. Med. Biol. (1991) 305:47-56
#title Human monocytic chemotactic protein-1 (MCP-1).
#cross-references MIM:92095166
#accession I51841
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-99 #label YO2
#cross-references GB:S71513; NID:g240867; PID:g240868

REFERENCE
#authors Bottazzi, B.; Colotta, F.; Sica, A.; Noddi, N.; Mantovani, A.
#journal Int. J. Cancer (1990) 45:795-797
#title A chemotactic protein expressed in human sarcoma cells (tumor-derived chemotactic factor, TDCF) is identical to monocytic chemotactic protein-1/monocytic chemotactic and

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#accession A60299 activating factor (MCP-1/MCAF).
#status not compared with conceptual translation
#molecule_type mRNA
#residues 1-99 #label BOT

REFERENCE
#authors Furutani, Y.; Nomura, H.; Notake, M.; Oyama, Y.; Fukui, T.; Yamada, M.; Larsen, C.G.; Oppenheim, J.J.; Matsushima, K.
#journal Biochem. Biophys. Res. Commun. (1989) 159:249-255
#title Cloning and sequencing of the cDNA for human monocytic chemotactic and activating factor (MCAF).
#cross-references MIM:89165862
#accession A32300
#status not compared with conceptual translation
#molecule_type mRNA
#residues 1-99 #label FUR
#cross-references GB:M24545; NID:g187434; PID:g307163

REFERENCE
#authors Robinson, E.A.; Yoshimura, T.; Leonard, E.J.; Tanaka, S.; Griffin, P.R.; Shadnawitz, J.; Hunt, D.F.; Appella, E.
#journal Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1850-1854
#title Complete amino acid sequence of a human monocytic chemotactic protein, a putative mediator of cellular immune reactions.
#cross-references MIM:89184525
#accession A32396
#molecule_type protein
#residues 1-99 #label ROB

REFERENCE
#authors Decosse, B.; Conings, R.; Lenaerts, J.P.; Billiau, A.; Van Damme, J.
#journal Biochem. Biophys. Res. Commun. (1990) 167:904-909
#title Identification of the monocytic chemotactic protein from human osteosarcoma cells and monocytes: detection of a novel N-terminally processed form.
#cross-references MIM:90211336
#accession A34561
#molecule_type protein
#residues 29-33, 'XX', 36-52; 82-92 #label DEC

REFERENCE
#authors Li, Y.S.; Shyy, Y.J.; Wright, J.G.; Valente, A.J.; Cornhill, J.F.; Kolattukudy, P.E.
#journal Mol. Cell. Biochem. (1993) 126:61-68
#title The expression of monocytic chemotactic protein (MCP-1) in human vascular endothelium in vitro and in vivo.
#cross-references MIM:94150478
#accession I57488
#status translated from GB/EMBL/DBJ
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#cross-references GB:S69738; NID:g54564; PID:g54565

REFERENCE
#authors Ye, Q.N.; Su, G.F.; Yuan, Y.; Huang, C.F.
#journal Chinese J. Microbiol. Immunol. (1994) 14:29-32
#title The PCR cloning and sequencing of human monocytic chemotactic protein-1 (MCP-1) gene.
#accession JC1096
#molecule_type mRNA
#residues 24-28, 'Q', 30-99 #label YEQ

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CLASSIFICATION
#superfamily macrophage inflammatory protein
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cytokine; glycoprotein; inflammation; pyroglyutamic acid
FEATURE
1-23
24-99
29-99
24
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#product monocytic chemotactic protein 1 #status
#status experimental #label MAT\
#modified site pyrrolidone carboxylic acid (Gln) (in mature form) #status experimental\

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Best Local Similarity 100.0%; Pred. No. 8,66e-06;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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      |||
QY      1 CADPROKQWQ 10

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ORGANISM      03-Aug-1992 #sequence_revision 03-Aug-1992 #text_change
DATE      31-Oct-1997
ACCESSIONS      A39296; B39296
REFERENCE      Wempe, F.; Henschen, A.; Schelt, K.H.
#authors      DNA Cell Biol. (1991) 10:671-679
#journal      Gene expression and cDNA cloning identified a major basic
#title      protein constituent of bovine seminal plasma as bovine
      #cross-references MUID:92096117
      #accession      A39296
      ##molecule_type mRNA
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#residues      50-68,'X','70-74','X','76 ##label WE2
CLASSIFICATION      ##experimental_source seminal vesicle
KEYWORDS      #superfamily macrophage inflammatory protein
FEATURE      glycoprotein
1-23
24-99

SUMMARY      #length 99 #molecular-weight 11114 #checksum 9401

Query Match      100.0%; Score 84; DB 2; Length 99;
Best Local Similarity 100.0%; Pred. No. 8,66e-06;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db      75 CADPROKQWQ 84
      |||
QY      1 CADPROKQWQ 10

RESULT      3
ENTRY      JC2336      #type complete
TITLE      monocytic chemoattractant protein-1 - bovine
ORGANISM      #formal_name Bos primigenius indicus #common_name zebu cattle
DATE      20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change
03-May-1996
ACCESSIONS      JC2336
REFERENCE      Wempe, F.; Kuhlmann, J.K.; Schelt, K.H.
#authors      Biochem. Biophys. Res. Commun. (1994) 202:1272-1279
#journal      Characterization of the bovine monocytic chemoattractant
#title      protein-1 gene.
#accession      JC2336
#molecule_type protein
#residues      1-99 ##label WEM
GENETICS      MCP-1
#gene      26/1; 65/2
#introns

CLASSIFICATION      #superfamily macrophage inflammatory protein
SUMMARY      #length 99 #molecular-weight 11114 #checksum 9401

Query Match      100.0%; Score 84; DB 2; Length 99;
Best Local Similarity 100.0%; Pred. No. 8,66e-06;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db      75 CADPROKQWQ 84
      |||
QY      1 CADPROKQWQ 10

RESULT      4
ENTRY      I46857      #type complete
TITLE      monocytic chemoattractant protein-1 - rabbit
ORGANISM      #formal_name Oryctolagus cuniculus #common_name domestic
      rabbit
DATE      14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change
09-May-1997
ACCESSIONS      I46857
REFERENCE      Yoshimura, T.; Yuhki, N.
#authors      J. Immunol. (1991) 146:3483-3488
#journal      Neutrophil attractant/activation protein-1 and monocytic
#title      chemoattractant protein-1 in rabbit: cDNA cloning and their
      expression in spleen cells.
      #cross-references MUID:91225489
      #accession      I46857
      ##status      preliminary; translated from GB/EMBL/DBJ
      ##molecule_type mRNA
      ##residues      1-125 ##label YOS
      #cross-references GB:M57440; NID:g165469; PID:g165470
CLASSIFICATION      #superfamily macrophage inflammatory protein
SUMMARY      #length 125 #molecular-weight 13776 #checksum 4498

Query Match      100.0%; Score 84; DB 2; Length 125;
Best Local Similarity 100.0%; Pred. No. 8,66e-06;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db      75 CADPROKQWQ 84
      |||
QY      1 CADPROKQWQ 10

RESULT      5
ENTRY      JC2136      #type complete
TITLE      monocytic chemoattractant protein-1 precursor - pig
ORGANISM      #formal_name Sus scrofa domestica #common_name domestic pig
DATE      30-Sep-1993 #sequence_revision 20-Aug-1994 #text_change
08-Sep-1997
ACCESSIONS      JC2136; S57498
REFERENCE      Hosang, K.; Knoke, I.; Klaudiny, J.; Wempe, F.; Wuttke, W.;
#authors      Schelt, K.H.
#journal      Biochem. Biophys. Res. Commun. (1994) 199:962-968
#title      Porcine luteal cells express monocytic chemoattractant
      protein-1 (MCP-1): Analysis by polymerase chain reaction
      and cDNA cloning.
#accession      JC2136
#molecule_type mRNA
#residues      1-99 ##label HOS
REFERENCE      S57497
#authors      Zach, O.
#journal      submitted to the EMBL Data Library, July 1994
#accession      S57498
#status      preliminary
#molecule_type mRNA
#residues      1-99 ##label ZAC
#cross-references EMBL:X79416; NID:g872312; PID:g872313
CLASSIFICATION      #superfamily macrophage inflammatory protein
KEYWORDS      glycoprotein
FEATURE      #domain signal sequence #status predicted #label SIG\
1-23
```

24-99 #product monocytic chemoattractant protein-1 #status
94 #predicted #label MAT\binding_site carbohydrate (Asn) (covalent) #status
predicted

SUMMARY #length 99 #molecular-weight 10976 #checksum 9768

Query Match 98.8%; Score 83; DB 2; Length 99;
Best Local Similarity 90.0%; Pred. No. 1.42e-05;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 75 CADPKQKRWQ 84
||:|||||
OY 1 CADPKQKRWQ 10

RESULT 6 #type complete
ENTRY 148099 eotaxin precursor - guinea pig
TITLE #formal_name Cavia porcellus #common_name guinea pig
ORGANISM 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
DATE 09-May-1997

ACCESSIONS 148099
REFERENCE 148099
#authors Rothenberg, M.E.; Luster, A.D.; Lilly, C.M.; Drazen, J.M.;
#journal J. Exp. Med. (1995) 181:1211-1216
#title Constitutive and allergen-induced expression of eotaxin mRNA
in the guinea pig lung.
#cross-references MUID:95173589
#accession 148099
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-96 #label RES
#cross-references EMBL:U018941; NID:9687655; PID:9687656
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 96 #molecular-weight 10753 #checksum 7236

Query Match 91.7%; Score 77; DB 2; Length 96;
Best Local Similarity 90.0%; Pred. No. 2.60e-04;
Matches 9; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 72 CADPKKRWQ 81
|||||
OY 1 CADPKKRWQ 10

RESULT 7 #type complete
ENTRY JC2478 eotaxin - rat
TITLE #formal_name Rattus norvegicus #common_name Norway rat
ORGANISM 21-Feb-1995 #sequence_revision 05-Apr-1995 #text_change
DATE 08-Sep-1997

ACCESSIONS JC2478
REFERENCE JC2478
#authors Jose, P.J.; Adcock, I.M.; Griffith-Johnson, D.A.; Berkman,
N.; Wells, T.N.C.; Williams, T.J.; Power, C.A.;
Biochem. Biophys. Res. Commun. (1994) 205:788-794
#journal Eotaxin: Cloning of an eosinophil chemoattractant cytokine
and increased mRNA expression in allergen-challenged
guinea-pig lungs.
#accession JC2478
#molecule_type mRNA
#residues 1-96 #label JOS
#cross-references EMBL:X77603; NID:9602551; PID:9603552
COMMENT This protein is identified as a potent eosinophil chemoattractant.
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS glycoprotein
FEATURE 1-23 #domain signal sequence #status predicted #label SIG\
24-96 #product eotaxin #status predicted #label MAT\
93 #binding_site carbohydrate (Thr) (covalent) #status
predicted
SUMMARY #length 96 #molecular-weight 10695 #checksum 7329

Query Match 91.7%; Score 77; DB 2; Length 96;
Best Local Similarity 90.0%; Pred. No. 2.60e-04;
Matches 9; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 72 CADPKKRWQ 81
|||||
OY 1 CADPKKRWQ 10

RESULT 8 #type complete
ENTRY JC2417 monocytic chemoattractant protein-2 - pig
TITLE #formal_name Sus scrofa domestica #common_name domestic pig
ORGANISM 24-Feb-1995 #sequence_revision 24-Feb-1995 #text_change
DATE 03-May-1996

ACCESSIONS JC2417
REFERENCE JC2417
#authors Hosang, K.; Knoke, I.; Klaudiny, J.; Wempe, F.; Wuttke, W.;
Schelt, K.H.
#journal Biochem. Biophys. Res. Commun. (1994) 205:148-153
#title Porcine luteal cells express monocytic chemoattractant
protein-2 (MCP-2): Analysis by cDNA cloning and northern
analysis.
#accession JC2417
#molecule_type mRNA
#residues 1-99 #label HOS
#cross-references #experimental_source corpus luteum
CLASSIFICATION #superfamily macrophage inflammatory protein
FEATURE 1-23 #domain signal sequence #status predicted #label SIG\
24-99 #product monocytic chemoattractant protein-2 #status
predicted #label MAT

SUMMARY #length 99 #molecular-weight 10903 #checksum 7556

Query Match 91.7%; Score 77; DB 2; Length 99;
Best Local Similarity 90.0%; Pred. No. 2.60e-04;
Matches 9; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 75 CADPKQKRWQ 84
|||||
OY 1 CADPKQKRWQ 10

RESULT 9 #type complete
ENTRY A54678 monocytic chemotactic protein 3 precursor - human
TITLE #formal_name Homo sapiens #common_name man
ORGANISM 28-Oct-1994 #sequence_revision 28-Oct-1994 #text_change
DATE 24-Sep-1998

ACCESSIONS A54678; S32222
REFERENCE A54678
#authors Odenakker, G.; Fiten, P.; Nys, G.; Froyen, G.; Van Roy, N.;
Speleman, F.; Laureys, G.; Van Damme, J.
#journal Genomics (1994) 21:403-408
#title The human MCP-3 gene (SCYA7): cloning, sequence analysis, and
assignment to the C-C chemokine gene cluster on chromosome
19q11.2-q12.
#accession A54678
#molecule_type DNA
#residues 1-109 #label OPD
#cross-references GB:X72309
REFERENCE JC1478
#authors Odenakker, G.; Froyen, G.; Fiten, P.; Proost, P.; Van Damme,
J.
#journal Biochem. Biophys. Res. Commun. (1993) 191:535-542
#title Human monocytic chemotactic protein-3 (MCP-3): Molecular
cloning of the cDNA and comparison with other chemokines.
#accession JC1478
#molecule_type mRNA
#residues 1-109 #label OP2
REFERENCE S32222

#authors Minty, A.; Chalon, P.; Guillemot, J.C.; Kaghad, M.; Lianzun, P.; Magazian, M.; Miloux, B.; Minty, C.; Ramond, P.; Vitta, N.; Lupker, J.; Shire, D.; Ferrara, P.; Caput, D.
#submission Submitted to the EMBL Data Library, March 1993
#description Molecular cloning of MCP-3: a human monocyte-derived monocyte chemoattractant protein.
#accession S32222
#molecule_type mRNA
#residues 1-109 #label MIN
#cross-references EMBL:X71087; NID:q288396; PID:q288397
COMMENT This protein induces proteinase secretion and chemotaxis by macrophages and monocytes.
GENETICS
#gene GDB:SCYA7; SCYA6; MCP-3
#cross-references GDB:138473; OMIM:158106
#map_position 17q11-17q12
#introns 36/1; 75/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS cytokine; glycoprotein; inflammation
FEATURE
1-33
34-109
39 #domain signal sequence #status predicted #label SIG\
#product monocyte chemotactic protein 3 #status predicted #label MAT\
#binding_site carbohydrate (Asn) (covalent) #status predicted
SUMMARY #length 109 #molecular-weight 12356 #checksum 1535
Query Match 91.7%; Score 77; DB 2; Length 109;
Best Local Similarity 90.0%; Pred. No. 2,60e-04;
Matches 9; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db 85 CADPCKRWQ 94
QY 1 CADPCKRWQ 10
RESULT 10
ENTRY 148147 #type complete
TITLE monocyte chemoattractant protein-1 - guinea pig
ORGANISM #formal_name Cavia porcellus #common_name guinea pig
DATE 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 09-May-1997
ACCESSIONS 148147
REFERENCE 148147 Yoshimura, T.
#authors J. Immunol. (1993) 150:5025-5032
#journal CDNA cloning of guinea pig monocyte chemoattractant protein-1 and expression of the recombinant protein.
#title
#cross-references MIM:93267104
#accession 148147
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-120 #label RES
#cross-references GB:I04985; NID:g349820; PID:g349821
JENETICS
#gene MCP-1
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 120 #molecular-weight 13741 #checksum 9252
Query Match 91.7%; Score 77; DB 2; Length 120;
Best Local Similarity 90.0%; Pred. No. 2,60e-04;
Matches 9; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db 73 CADPCKRWQ 82
QY 1 CADPCKRWQ 10
RESULT 11
ENTRY JC4912 #type complete
TITLE eotaxin - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 01-Nov-1996 #sequence_revision 01-Nov-1996 #text_change

08-Sep-1997
ACCESSIONS JC4912
REFERENCE JC4912
#authors Bartels, J.; Schluter, C.; Richter, E.; Noso, N.; Kulke, R.; Christophers, E.; Schroeder, J.M.
#journal Biochem. Biophys. Res. Commun. (1996) 225:1045-1051
#title Human dermal fibroblasts express eotaxin: Molecular cloning, mRNA expression, and identification of eotaxin sequence variants.
#accession JC4912
#status preliminary
#molecule_type mRNA
#residues 1-97 #label BAR
#cross-references EMBL:Z75668; NID:g1531962; PID:e251275; PID:g1531963
#experimental_source dermal fibroblast
COMMENT This protein has eosinophil specific chemotactic activity.
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS fibroblast
FEATURE
1-18
19-97
SUMMARY #domain signal sequence #status predicted #label SIG\
#product eotaxin #status predicted #label MAT
#length 97 #molecular-weight 10790 #checksum 448
Query Match 88.1%; Score 74; DB 2; Length 97;
Best Local Similarity 80.0%; Pred. No. 1,08e-03;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
Db 73 CADPCKRWQ 82
QY 1 CADPCKRWQ 10
RESULT 12
ENTRY 152322 #type complete
TITLE macrophage inflammatory protein-1alpha - rat
ORGANISM #formal_name Rattus norvegicus #common_name Norway rat
DATE 29-May-1998 #sequence_revision 29-May-1998 #text_change 02-Jul-1998
ACCESSIONS 152322
REFERENCE 152322
#authors Shi, M.M.; Godleski, J.J.; Pauluski, J.D.
#journal Biochem. Biophys. Res. Commun. (1995) 211:289-295
#title Molecular cloning and posttranscriptional regulation of macrophage inflammatory protein-1 alpha in alveolar macrophages.
#cross-references MIM:95298037
#accession 152322
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-92 #label RES
#cross-references EMBL:U22414; NID:g790632; PID:g790633
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 92 #molecular-weight 10335 #checksum 3184
Query Match 86.9%; Score 73; DB 2; Length 92;
Best Local Similarity 80.0%; Pred. No. 1,73e-03;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
Db 73 CADPCKRWQ 82
QY 1 CADPCKRWQ 10
RESULT 13
ENTRY JN0841 #type complete
TITLE interleukin-8-dog
ORGANISM #formal_name Canis lupus familiaris #common_name dog
DATE 19-May-1994 #sequence_revision 19-May-1994 #text_change 12-Apr-1995
ACCESSIONS JN0841
REFERENCE JN0841
#authors Ishikawa, J.; Suzuki, S.; Hotta, K.; Hirota, Y.; Mizuno, S.; Suzuki, K.

#journal 1 Gene (1993) 131:305-306
#title Cloning of a canine gene homologous to the human
#accession JN0841
#molecule-type DNA
#residues 1-95 ##label ISH
COMMENT This protein is a polymorphonuclear leukocytes chemotactic factor
and is involved in the host defense function.

GENETICS
#intons 22/1; 67/2
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 95 #molecular-weight 10611 #checksum 3157

Query Match 86.9%; Score 73; DB 2; Length 95;
Best Local Similarity 80.0%; Pred. No. 1.73e-03;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 77 CDDPKKRWQ 86
1 |||:||||
QY 1 CADPKOKRWQ 10

RESULT 14
ENTRY I46871 #type complete
TITLE Interleukin-8 - rabbit
ALTERNATE_NAMES neutrophil attractant/activation protein-1
ORGANISM #formal_name Oryctolagus cuniculus #common_name domestic
rabbit
DATE 14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change
09-Aug-1997

ACCESSIONS
REFERENCE I46871; S13052
I46857; S13052

#authors Yoshimura, T.; Yuhki, N.
J. Immunol. (1991) 146:3483-3488
#journal Neutrophil attractant/activation protein-1 and monocyte
#title Chemotactic protein-1 in rabbit: cDNA cloning and their
expression in spleen cells.

#cross-references MUID:91225489
#accession I46871
#status preliminary; translated from GB/EMBL/DBJ
#molecule-type mRNA
#residues 1-101 ##label YOS
##cross-references GB:M57439; NID:g165552; PID:g165553
S13052

REFERENCE
#authors Beaudien, B.C.; Collins, P.D.; Jose, P.J.; Totty, N.F.;
Hsuan, J.; Waterfield, M.D.; Williams, T.J.
Biochem. J. (1990) 271:797-801
#journal A novel neutrophil chemotactic protein generated during an
#title inflammatory reaction in the rabbit peritoneal cavity in
vivo. Purification, partial amino acid sequence and
structural relationship to interleukin 8.

#cross-references MUID:91058518
#accession S13052
#molecule-type protein
#residues 23-33, 'X', '35', 'X', '37-46', 'X', '48-49', 'I', '51-53' ##label BEA
CLASSIFICATION #superfamily beta-thromboglobulin
KEYWORDS cytokine
SUMMARY #length 101 #molecular-weight 11402 #checksum 1085

Query Match 86.9%; Score 73; DB 2; Length 101;
Best Local Similarity 80.0%; Pred. No. 1.73e-03;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 77 CDDPKKRWQ 86
1 |||:||||
QY 1 CADPKOKRWQ 10

RESULT 15
ENTRY I46997 #type complete
TITLE Interleukin-8 - sheep
ORGANISM #formal_name Ovis sp. #common_name sheep
DATE 21-Feb-1997 #sequence_revision 21-Feb-1997 #text_change

ACCESSIONS
REFERENCE I46997
#authors Seow, H.F.; Yoshimura, T.; Wood, P.R.; Golditz, I.G.
#journal Immunol. Cell Biol. (1994) 72:398-405
#title Cloning, sequencing, expression and inflammatory activity in
#cross-references MUID:95137691
#accession I46997
#status preliminary; translated from GB/EMBL/DBJ
#molecule-type mRNA
#residues 1-101 ##label SEO
##cross-references GB:S74436; NID:g786590; PID:g786591

GENETICS
#gene OIL-8
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 101 #molecular-weight 11292 #checksum 294

Query Match 86.9%; Score 73; DB 2; Length 101;
Best Local Similarity 80.0%; Pred. No. 1.73e-03;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 77 CDDPKKRWQ 86
1 |||:||||
QY 1 CADPKOKRWQ 10

RESULT 16
ENTRY S42496 #type complete
TITLE Interleukin 8 - sheep
ORGANISM #formal_name Ovis orientalis aries, Ovis ammon aries
#common_name domestic sheep
DATE 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change
08-Sep-1997

ACCESSIONS
REFERENCE S42496
S42496

#authors Legastelois, I.; Greenland, T.; Arnaud, P.; Mornex, J.F.;
Cordier, G.
#submission submitted to the EMBL Data Library, March 1994
#description Nucleotide sequence of ovine interleukin 8 cDNA using
#accession S42496
#status preliminary
##molecule-type mRNA
#residues 1-101 ##label LEG
##cross-references EMBL:X78306; NID:g463253; PID:g463254
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 101 #molecular-weight 11292 #checksum 294

Query Match 86.9%; Score 73; DB 2; Length 101;
Best Local Similarity 80.0%; Pred. No. 1.73e-03;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 77 CDDPKKRWQ 86
1 |||:||||
QY 1 CADPKOKRWQ 10

RESULT 17
ENTRY A44253 #type complete
TITLE Alveolar macrophage chemotactic factor-I (AMCF-I)
ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
DATE 30-Apr-1993 #sequence_revision 18-Nov-1994 #text_change
23-Feb-1996

ACCESSIONS
REFERENCE A44253
A44253

#authors Goodman, R.B.; Foster, D.C.; Mathewes, S.L.; Osborn, S.G.;
Kuljper, J.L.; Forstrom, J.W.; Martin, T.R.
Biochemistry (1992) 31:10483-10490
#journal Molecular cloning of porcine alveolar macrophage-derived
#title neutrophil chemotactic factors I and II: identification of
porcine IL-8 and another intercrine-alpha protein.

```

#cross-references MUID:93041741
#accession A44253
#status Preliminary
#molecule_type mRNA; protein
#residues 1-103 #label GOO
#experimental_source alveolar macrophage
#note Sequence extracted from NCBI backbone (NCBIN:117415,
NCBIR:117416)
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 103 #molecular-weight 11677 #checksum 8904

Query Match 86.9%; Score 73; DB 2; Length 103;
Best Local Similarity 80.0%; Pred. No. 1.73e-03;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 77 CLDPKRWVQ 86
1 11111111
OY 1 CADPRKRWVQ 10

RESULT 18
ENTRY A53096 #type complete
TITLE Interleukin-8 precursor - pig
ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
DATE 02-Jun-1995 #sequence_revision 02-Jun-1995 #text_change
08-Sep-1997
ACCESSIONS A53096
REFERENCE A53096
#authors Lin, G.; Pearson, A.E.; Scamurra, R.W.; Zhou, Y.; Baarsch,
M.J.; Weiss, D.J.; Murrugh, M.P.
#journal J. Biol. Chem. (1994) 269:77-85
#title Regulation of Interleukin-8 expression in porcine alveolar
macrophages by bacterial lipopolysaccharide.
#accession A53096
#status Preliminary
#molecule_type mRNA
#residues 1-103 #label LIN
#cross-references GB:M86923; NID:q164520; PID:q164521
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 103 #molecular-weight 11633 #checksum 8835

Query Match 86.9%; Score 73; DB 2; Length 103;
Best Local Similarity 80.0%; Pred. No. 1.73e-03;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 77 CLDPKRWVQ 86
1 11111111
OY 1 CADPRKRWVQ 10

RESULT 19
ENTRY JC5295 #type complete
TITLE monocyte chemotactic protein-2 - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 02-May-1997 #sequence_revision 18-Jul-1997 #text_change
31-Oct-1997
ACCESSIONS JC5295
REFERENCE JC5295
#authors Van Collie, E.; Froyen, G.; Nomiya, H.; Miura, R.; Fitch,
P.; Van Aelst, I.; Van Damme, J.; Odenakker, G.
#journal Biochem. Biophys. Res. Commun. (1997) 231:726-730
#title Human monocyte chemotactic protein-2: cDNA cloning and
regulated expression of mRNA in mesenchymal cells.
#accession JC5295
#molecule_type mRNA
#residues 1-99 #label VAN
#cross-references GB:Y10802; NID:q1924937; PID:q294088; PID:q1924938
#experimental_source bone marrow
COMMENT This protein belongs to the beta-chemokine family which is one of
the major HIV-suppressive factors. It plays roles in autoimmune
processes such as multiple sclerosis and rheumatoid arthritis and
in tumor biology, and contribute to the trafficking and
recruitment of the responsive cells.

#cross-references MUID:93041741
#accession A44253
#status Preliminary
#molecule_type mRNA; protein
#residues 1-103 #label GOO
#experimental_source alveolar macrophage
#note Sequence extracted from NCBI backbone (NCBIN:117415,
NCBIR:117416)
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 103 #molecular-weight 11677 #checksum 8904

Query Match 86.9%; Score 73; DB 2; Length 103;
Best Local Similarity 80.0%; Pred. No. 1.73e-03;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 77 CLDPKRWVQ 86
1 11111111
OY 1 CADPRKRWVQ 10

RESULT 18
ENTRY A53096 #type complete
TITLE Interleukin-8 precursor - pig
ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
DATE 02-Jun-1995 #sequence_revision 02-Jun-1995 #text_change
08-Sep-1997
ACCESSIONS A53096
REFERENCE A53096
#authors Lin, G.; Pearson, A.E.; Scamurra, R.W.; Zhou, Y.; Baarsch,
M.J.; Weiss, D.J.; Murrugh, M.P.
#journal J. Biol. Chem. (1994) 269:77-85
#title Regulation of Interleukin-8 expression in porcine alveolar
macrophages by bacterial lipopolysaccharide.
#accession A53096
#status Preliminary
#molecule_type mRNA
#residues 1-103 #label LIN
#cross-references GB:M86923; NID:q164520; PID:q164521
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 103 #molecular-weight 11633 #checksum 8835

Query Match 86.9%; Score 73; DB 2; Length 103;
Best Local Similarity 80.0%; Pred. No. 1.73e-03;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 77 CLDPKRWVQ 86
1 11111111
OY 1 CADPRKRWVQ 10

RESULT 19
ENTRY JC5295 #type complete
TITLE monocyte chemotactic protein-2 - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 02-May-1997 #sequence_revision 18-Jul-1997 #text_change
31-Oct-1997
ACCESSIONS JC5295
REFERENCE JC5295
#authors Van Collie, E.; Froyen, G.; Nomiya, H.; Miura, R.; Fitch,
P.; Van Aelst, I.; Van Damme, J.; Odenakker, G.
#journal Biochem. Biophys. Res. Commun. (1997) 231:726-730
#title Human monocyte chemotactic protein-2: cDNA cloning and
regulated expression of mRNA in mesenchymal cells.
#accession JC5295
#molecule_type mRNA
#residues 1-99 #label VAN
#cross-references GB:Y10802; NID:q1924937; PID:q294088; PID:q1924938
#experimental_source bone marrow
COMMENT This protein belongs to the beta-chemokine family which is one of
the major HIV-suppressive factors. It plays roles in autoimmune
processes such as multiple sclerosis and rheumatoid arthritis and
in tumor biology, and contribute to the trafficking and
recruitment of the responsive cells.

GENETICS MCP-2
CLASSIFICATION #superfamily macrophage inflammatory protein
FEATURE #domain signal sequence #status predicted #label SIG\
1-23 #product monocyte chemotactic protein-2 #status
24-99 predicted #label MAT
SUMMARY #length 99 #molecular-weight 11246 #checksum 6596

Query Match 84.5%; Score 71; DB 2; Length 99;
Best Local Similarity 70.0%; Pred. No. 4.39e-03;
Matches 7; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 75 CADPRKRWV 84
1 11111111
OY 1 CADPRKRWVQ 10

RESULT 20
ENTRY I48148 #type complete
TITLE Neutrophil attractant protein-1 - guinea pig
ORGANISM #formal_name Cavia porcellus #common_name guinea pig
DATE 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
23-Feb-1997
ACCESSIONS I48148
REFERENCE I48148
#authors Yoshimura, T.; Johnson, D.G.
#journal J. Immunol. (1993) 151:6225-6236
#title cDNA cloning and expression of guinea pig neutrophil
attractant protein-1 (NAP-1): NAP-1 is highly conserved in
guinea pig.
#cross-references MUID:94065176
#accession I48148
#status Preliminary; translated from GB/EMBL/DBJ
#molecule_type DNA
#residues 1-101 #label RPS
#cross-references GB:L04986; NID:q459764; PID:q459765
GENETICS NAP-1
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 101 #molecular-weight 11414 #checksum 2363

Query Match 83.3%; Score 70; DB 2; Length 101;
Best Local Similarity 80.0%; Pred. No. 6.96e-03;
Matches 8; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Db 77 CLDPKRWVQ 86
1 11111111
OY 1 CADPRKRWVQ 10

RESULT 21
ENTRY A30209 #type complete
TITLE PDGF-inducible JE glycoprotein precursor - mouse
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 01-Dec-1989 #sequence_revision 01-Dec-1989 #text_change
01-May-1998
ACCESSIONS A30209; A44771; A30861
REFERENCE A30209
#authors Rollins, B.J.; Morrison, E.D.; Stiles, C.D.
#journal Proc. Natl. Acad. Sci. U.S.A. (1988) 85:3738-3742
#title Cloning and expression of JE, a gene inducible by
platelet-derived growth factor and whose product has
cytokine-like properties.
#cross-references MUID:88234501
#accession A30209
#molecule_type DNA
#residues 1-148 #label ROL
#cross-references GB:M19681; NID:q193486; PID:q387168; GB:M19682
A44771
REFERENCE A44771
#authors Kawahara, R.S.; Deuel, T.F.
#journal J. Biol. Chem. (1989) 264:679-682
#title Platelet-derived growth factor-inducible gene JE is a member

```

of a family of small inducible genes related to platelet factor 4.

#accession A44771
#molecule_type DNA; mRNA
#residues 1-148 #label KA2
#cross-references GB:J04467; NID:g193488; PID:g387169

GENETICS
#gene JE
#introns 26/1; 65/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS cytokine; glycoprotein
FEATURE
126 #binding_site carbohydrate (asn) (covalent) #status predicted
SUMMARY #length 148 #molecular-weight 16326 #checksum 5278

Query Match 82.1%; Score 69; DB 2; Length 148;
Best Local Similarity 80.0%; Pred. No. 1.10e-02;
Matches 8; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Db 75 CADPKKMWQ 84
| | | | | | | | | |
QY 1 CADPKKMWQ 10

RESULT 22
ENTRY I53416 #type complete
TITLE Interleukin-8 homolog - mouse
ORGANISM #formal_name Mus sp. #common_name mouse
DATE 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change 28-Feb-1997

ACCESSIONS I53416
REFERENCE I53416
#authors Jiang, W.; Zhou, P.; Kahn, S.M.; Tomita, N.; Johnson, M.D.; Weinstein, I.B.
#journal Exp. Cell Res. (1994) 215:284-293
#title Molecular cloning of TP41, a gene whose expression is repressed by the tumor promoter 12-O-tetradecanoylphorbol 13-acetate (TPA).
#cross-references MUID:95073497
#accession I53416
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-89 #label RES
#cross-references GB:S74318; NID:g786393; PID:g786394

GENETICS
#gene TP41
SUMMARY #length 89 #molecular-weight 10032 #checksum 4622

Query Match 79.8%; Score 67; DB 2; Length 89;
Best Local Similarity 70.0%; Pred. No. 2.73e-02;
Matches 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 71 CIDPKLKWQ 80
| | | | | | | | | |
QY 1 CADPKKMWQ 10

RESULT 23
ENTRY A53497 #type complete
TITLE pre-B-cell growth-stimulating factor precursor - mouse
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 02-Jun-1994 #sequence_revision 02-Jun-1994 #text_change 10-Sep-1997

ACCESSIONS A53497; I59582
REFERENCE A53497
#authors Nagasawa, T.; Kikutani, H.; Kishimoto, T.
#journal Proc. Natl. Acad. Sci. U.S.A. (1994) 91:2305-2309
#title Molecular cloning and structure of a pre-B-cell growth-stimulating factor.
#accession A53497
#status preliminary
#molecule_type mRNA

##residues 1-89 #label NAG
#cross-references GB:D21072; NID:g413905; PID:d1005177; PID:g468457

REFERENCE I59582
#authors Tashiro, K.; Tada, H.; Heilker, R.; Shirozu, M.; Nakano, T.; Honjo, T.
#journal Science (1993) 261:600-603
#title Signal sequence trap: a cloning strategy for secreted proteins and type I membrane proteins.
#cross-references MUID:93342488
#accession I59582
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-89 #label RES
#cross-references GB:L12029; NID:g393179; PID:g393180

GENETICS
#gene SDF-1-alpha
KEYWORDS cytokine
SUMMARY #length 89 #molecular-weight 10032 #checksum 4622

Query Match 79.8%; Score 67; DB 2; Length 89;
Best Local Similarity 70.0%; Pred. No. 2.73e-02;
Matches 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 71 CIDPKLKWQ 80
| | | | | | | | | |
QY 1 CADPKKMWQ 10

RESULT 24
ENTRY G01540 #type complete
TITLE cytokine SDF-1-beta - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 21-Dec-1996 #sequence_revision 06-Jun-1997 #text_change 17-Jul-1998

ACCESSIONS G01540
REFERENCE G07697
#authors Spotlitz, L.D.
#subission Submitted to the EMBL Data Library, October 1994
#accession G01540
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-93 #label SPO
#cross-references EMBL:U16752; NID:g1272194; PID:g571508
SUMMARY #length 93 #molecular-weight 10666 #checksum 6309

Query Match 79.8%; Score 67; DB 2; Length 93;
Best Local Similarity 70.0%; Pred. No. 2.73e-02;
Matches 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 71 CIDPKLKWQ 80
| | | | | | | | | |
QY 1 CADPKKMWQ 10

RESULT 25
ENTRY I81182 #type complete
TITLE cytokine - mouse
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change 28-Feb-1997

ACCESSIONS I81182
REFERENCE I59582
#authors Tashiro, K.; Tada, H.; Heilker, R.; Shirozu, M.; Nakano, T.; Honjo, T.
#journal Science (1993) 261:600-603
#title Signal sequence trap: a cloning strategy for secreted proteins and type I membrane proteins.
#accession I81182
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-93 #label RES
#cross-references GB:L12030; NID:g393181; PID:g393182

```

GENETICS
#gene SDF-1-beta
SUMMARY #length 93 #molecular-weight 10561 #checksum 5309

Query Match 79.8%; Score 67; DB 2; Length 93;
Best Local Similarity 70.0%; Pred. No. 2,73e-02;
Matches 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 71 CIDPKLKWIQ 80
      1 111 11:1
QY 1 CADPKKWKVQ 10

RESULT 26
ENTRY A37034 #type complete
TITLE Interleukin-8 precursor - human
ALTERNATE_NAMES beta-thromboglobulin-like protein; fibroblast-derived
neutrophil-activating factor alpha; lung carcinoma-derived
chemotactin; lymphocyte-derived neutrophil-activating
factor; monocyte-derived neutrophil chemotactic factor;
monocyte-derived neutrophil-activating factor
#formal_name Homo sapiens #common_name man
DATE 08-Dec-1992 #sequence_revision 08-Dec-1992 #text_change
13-Sep-1998

ACCESSIONS A37034; J100041; A32791; S37634; P10107; A28598; A27488;
A39960; A60401; A60591; S15827; S04216; A60567; A60847;
S15417; S03975; I54560; I55992; I37902; S67519

REFERENCE
#authors Mukaide, N.; Shiroo, M.; Matsushima, K.
#journal J. Immunol. (1989) 143:1366-1371
#title Genomic structure of the human monocyte-derived neutrophil
chemotactic factor IL-8.
#cross-references MUID:89309826
#accession A37034
#molecule_type DNA
#residues 1-99 #label MUK
#cross-references GB:M28130; NID:g186367; PID:g186368
#note the authors failed to translate the last thirty-six
nucleotides of the second exon

REFERENCE
#authors J100041
Matsushima, K.; Morishita, K.; Yoshimura, T.; Lavu, S.;
Kobayashi, Y.; Lew, W.; Appella, E.; Kung, H.F.; Leonard,
E.J.; Oppenheim, J.J.
#journal J. Exp. Med. (1988) 167:1883-1893
#title Molecular cloning of a human monocyte-derived neutrophil
chemotactic factor (MDNCF) and the induction of MDNCF mRNA
by interleukin 1 and tumor necrosis factor.
#cross-references MUID:88258376
#accession J100041
#molecule_type mRNA
#residues 1-99 #label MA1
#cross-references EMBL:Y00787; NID:g34518; PID:g34519
#note the sequence shows similarity to several
platelet-derived factors, a v-src-induced protein, a
growth-regulated gene product (gro), and an
IFN-gamma-inducible protein

REFERENCE
#authors A32791
Kowalski, J.; Denhardt, D.T.
#journal Mol. Cell. Biol. (1989) 9:1946-1957
#title Regulation of the mRNA for monocyte-derived
neutrophil-activating peptide in differentiating HU60
promyelocytes.
#cross-references MUID:89313739
#accession A32791
#molecule_type mRNA
#residues 1-99 #label KOW
#cross-references GB:M26383; NID:g188627; PID:g188628

REFERENCE
#authors S37634
King, C.H.; Gordon, G.S.; Konieczkowski, M.; Sedor, J.R.
#submission submitted to the EMBL Data Library, February 1992
#accession S37634
#status Preliminary
#molecule_type mRNA

#residues 1-97 #label KIN
#cross-references EMBL:Z11686; NID:g33958; PID:g33959

REFERENCE
#authors P10107
Suzuki, K.; Miyasaka, H.; Ota, H.; Yamakawa, Y.; Tagawa, M.;
Kuramoto, A.; Mizuno, S.
#journal J. Exp. Med. (1989) 169:1895-1901
#title Purification and partial primary sequence of a chemotactic
protein for polymorphonuclear leukocytes derived from human
lung giant cell carcinoma Lu65C cells.
#cross-references MUID:89279141
#accession P10107
#molecule_type protein
#residues 23-32,'XR',35,'X',37-52,'L',54 #label SUZ
#experimental_source lung giant cell carcinoma Lu65C

REFERENCE
#authors A28598
Gregory, H.; Young, J.; Schroeder, J.M.; Mrowietz, U.;
Christophers, E.
#journal Biochem. Biophys. Res. Commun. (1988) 151:883-890
#title Structure determination of a human lymphocyte derived
neutrophil activating peptide (LYNAP).
#cross-references MUID:88162914
#accession A28598
#molecule_type protein
#residues 28-99 #label GRE

REFERENCE
#authors A27488
Waltz, A.; Peverl, P.; Aschauer, H.; Baggiolini, M.
#journal Biochem. Biophys. Res. Commun. (1987) 149:755-761
#title Purification and amino acid sequencing of NAF, a novel
neutrophil-activating factor produced by monocytes.
#cross-references MUID:88106502
#accession A27488
#molecule_type protein
#residues 28-59 #label WAL

REFERENCE
#authors A39960
Yoshimura, T.; Matsushima, K.; Tanaka, S.; Robinson, E.A.;
Appella, E.; Oppenheim, J.J.; Leonard, E.J.
#journal Proc. Natl. Acad. Sci. U.S.A. (1987) 84:9233-9237
#title Purification of a human monocyte-derived neutrophil
chemotactic factor that has peptide sequence similarity to
other host defense cytokines.
#cross-references MUID:88097462
#accession A39960
#molecule_type protein
#residues 28-69 #label YOS

REFERENCE
#authors A60401
Schroeder, J.M.; Sticherling, M.; Henneicke, H.H.; Preissner,
W.C.; Christophers, E.
#journal J. Immunol. (1990) 144:2223-2232
#title IL-1alpha or tumor necrosis factor-alpha stimulate release of
three NAP-1/IL-8-related neutrophil chemotactic proteins in
human dermal fibroblasts.
#cross-references MUID:90187866
#accession A60401
#molecule_type protein
#residues 23-32 #label SCH
#experimental_source dermal fibroblasts
#note a minor component of this material (15%) includes an
additional two amino acids at the amino end

REFERENCE
#authors A60591
Van Damme, J.; Decock, B.; Conings, R.; Lenaerts, J.P.;
Opdenakker, G.; Billiau, A.
#journal Eur. J. Immunol. (1989) 19:1189-1194
#title The chemotactic activity for granulocytes produced by virally
infected fibroblasts is identical to monocyte-derived
interleukin 8.
#accession A60591
#molecule_type protein
#residues 23-33,'X',35,'X',37-42 #label VAN

REFERENCE
#authors S15827
Nakagawa, H.; Hatakeyama, S.; Ikesue, A.; Miyai, H.
#journal FEBS Lett. (1991) 282:412-414
#title Generation of interleukin-8 by plasmin from
AVPR-interleukin-8, the human fibroblast-derived

```

neutrophil chemotactic factor.

#cross-references MUID:91243843

#accession S15827

#molecule_type protein

#residues 23-33, 'X', 35, 'X', 37-47 #label FFB

REFERENCE S04216

#authors van Damme, J.; van Beeumen, J.; Conings, R.; Decock, B.;

#journal Eur. J. Biochem. (1989) 181:337-344

#title Purification of granulocyte chemotactic peptide/interleukin-8 reveals N-terminal sequence heterogeneity similar to that of beta-thromboglobulin.

#cross-references MUID:89231715

#accession S04216

#molecule_type protein

#residues 21-67 #label VA2

REFERENCE A60567

#authors Yoshimura, T.; Robinson, E.A.; Appella, E.; Matsushima, K.;

#journal Mol. Immunol. (1989) 26:87-93

#title Three forms of monocyte-derived neutrophil chemotactic factor (MNCF) distinguished by different lengths of the amino-terminal sequence.

#accession A60567

#molecule_type protein

#residues 21-33, 'X', 35, 'X', 37-47 #label Y02

#note the forms starting from positions 21, 23, and 28 represented 8%, 47%, and 45%, respectively, of total interleukin-8

REFERENCE A60847

#authors Van Damme, J.; Van Beeumen, J.; Opdenakker, G.; Billiau, A.;

#journal J. Exp. Med. (1988) 167:1364-1376

#title A novel, NH-2-terminal sequence-characterized human monokine possessing neutrophil chemotactic, skin-reactive, and granulocytosis-promoting activity.

#accession A60847

#molecule_type protein

#residues 28-47 #label VA3

REFERENCE S15417

#authors Car, B.D.; Baggiolini, M.; Walz, A.;

#journal Biochem. J. (1991) 275:581-584

#title Formation of neutrophil-activating peptide 2 from platelet-derived connective-tissue-activating peptide III by different tissue proteinases.

#cross-references MUID:91248085

#accession S15417

#status preliminary

#molecule_type protein

#residues 28-99 #label CAR

REFERENCE S03975

#authors Golds, E.E.; Mason, P.; Ntirkos, P.;

#journal Biochem. J. (1989) 259:585-588

#title Inflammatory cytokines induce synthesis and secretion of gro protein and a neutrophil chemotactic factor but not beta-2-microglobulin in human synovial cells and fibroblasts.

#cross-references MUID:89246368

#accession S03975

#molecule_type protein

#residues 23-46 #label GOL

REFERENCE I54560

#authors Hotta, K.; Hayashi, K.; Ishikawa, J.; Tagawa, M.; Hashimoto, K.; Mizuno, S.; Suzuki, K.;

#journal Immunol. Lett. (1990) 24:165-170

#title Coding region structure of interleukin-8 gene of human lung giant cell carcinoma LU65C cells that produce ILCT/interleukin-8: homogeneity in interleukin-8 genes.

#cross-references MUID:90346419

Note: remainder of annotations omitted.

Query Match 79.8%; Score 67; DB 2; Length 99;

Best Local Similarity 70.0%; Pred. No. 2.73e-02;

Matches	7;	Conservative	2;	Mismatches	1;	Indels	0;	Gaps	0;
Db	77	CLDPKENVQ	86						
Oy	1	CADPKRQVQ	10						

RESULT 27

ENTRY A46539 #type complete

TITLE monocyte chemoattractant cytokine RANTES precursor - mouse

ALTERNATE_NAMES Murantes

ORGANISM #formal name Mus musculus #common name house mouse

DATE 18-Jun-1993 #sequence_revision 16-Aug-1996 #text_change 11-Sep-1998

ACCESSIONS I48875; A46539; I48654; I56970

REFERENCE I48875

#authors Danoff, T.M.; Lalley, P.A.; Chang, Y.S.; Heeger, P.S.;

#journal J. Immunol. (1994) 152:1182-1189

#title Cloning, genomic organization, and chromosomal localization of the Scya5 gene encoding the murine chemokine RANTES.

#cross-references MUID:94132613

#accession I48875

#status preliminary; translated from GB/EMBL/DBJ

#molecule_type DNA

#residues 1-91 #label DAN

#cross-references EMBL:U02298; NID:g460090; PID:g460091

REFERENCE A46539

#authors Schall, T.J.; Simpson, N.J.; Mak, J.Y.;

#journal Eur. J. Immunol. (1992) 22:1477-1481

#title Molecular cloning and expression of the murine RANTES cytokine: structural and functional conservation between mouse and man.

#cross-references MUID:92289805

#accession A46539

#molecule_type mRNA

#residues 1-18, 'A', 20-91 #label SCH

#experimental_source macrophage cell line PUS-1.8

#note sequence extracted from NCBI backbone (NCBIN:106768, NCBIPI:106770)

REFERENCE I48654

#authors Shin, H.S.; Drysdale, B.E.; Shin, M.L.; Noble, P.W.; Fisher, S.N.; Panetier, W.A.;

#journal Mol. Cell. Biol. (1994) 14:2914-2925

#title Definition of a lipopolysaccharide-responsive element in the 5'-flanking regions of Murantes and cys-2.

#cross-references MUID:94217689

#accession I48654

#status translation not shown; translated from GB/EMBL/DBJ

#molecule_type DNA

#residues 1-91 #label SHI

#cross-references EMBL:X70675; NID:g475205; PID:g475206

REFERENCE I56970

#authors Neilson, E.G.; Krensky, A.;

#journal Kidney Int. (1992) 41:220-225

#title Isolation and characterization of cDNA from renal tubular epithelium encoding murine Rantes: A small intercrine from the Scy superfamily.

#cross-references MUID:92277990

#accession I56970

#status translated from GB/EMBL/DBJ

#molecule_type mRNA

#residues 1-40, 'E', 42-91 #label NEI

#cross-references GB:M77747; NID:g200649; PID:g200650

COMMENT This chemoattractant for monocytes but not neutrophils is an immediate-early response protein to LPS stimulation.

GENETICS

#introns 26/1; 63/2

CLASSIFICATION #superfamily macrophage inflammatory protein

KEYWORDS chemotaxis; cytokine; immediate-early protein; inflammation

FEATURE 1-23

24-91 #domain signal sequence #status predicted #label SIG

#product monocyte chemoattractant cytokine RANTES

#status predicted #label MAT
SUMMARY #length 91 #molecular-weight 10071 #checksum 3010

Query Match 78.6%; Score 66; DB 1; Length 91;
Best Local Similarity 70.0%; Pred. No. 4.28e-02;
Matches 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 73 CANPEKRWQ 82
11:111111
QY 1 CADPKQKRWQ 10

RESULT 28
ENTRY A32393 #type complete
TITLE macrophage inflammatory protein-1-alpha precursor - mouse
ALTERNATE_NAMES heparin-binding chemotaxis protein; L2635B protein;
SCI/MP-1a; SIS alpha; stem cell inhibitor/macrophage
inflammatory protein 1-alpha; T-cell activation protein
alpha; TYS
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change
08-Sep-1997
ACCESSIONS S11685; A32393; S04533; A53885; A30552; PS0303; A27596;
I56104
REFERENCE S11685
#authors Grove, M.; Lowe, S.; Graham, G.; Pragnell, I.; Plumb, M.
#journal Nucleic Acids Res. (1990) 18:5561
#title Sequence of the murine haemopoietic stem cell
inhibitor/macrophage inflammatory protein 1-alpha gene.
#cross-references MIMD:89184547
#accession S11685
##molecule_type DNA
##residues 1-92 ##label GRO
#cross-references EMBL:X53372; NID:954062; PID:9297531
#note the authors' translation of the nucleotide sequence
differs at several positions from the sequence given

REFERENCE A32393
#authors Kwon, B.S.; Weissman, S.M.
#journal Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1963-1967
#title cDNA sequence of two inducible T-cell genes.
#cross-references MIMD:89184547
#accession A32393
##molecule_type mRNA
##residues 1-92 ##label KWO
#cross-references GB:U04491; NID:9201524; PID:9201525
SD4533
REFERENCE
#authors Davatelis, G.; Tekamp-Olson, P.; Wolpe, S.D.; Hermesen, K.;
Luedke, C.; Gallegos, C.; Colt, D.; Merryweather, J.;
Cerami, A.
#journal J. Exp. Med. (1988) 167:1939-1944
#title Cloning and characterization of a cDNA for murine macrophage
inflammatory protein (MIP), a novel monokine with
inflammatory and chemokinetic properties.
#cross-references MIMD:88258380
#accession S04533
##molecule_type mRNA
##residues 1-48, 'E', 50-90, 'I', 92 ##label DA2
#cross-references EMBL:X12531
#note the authors translated the codon GAG for residue 49 as
Asp and ATT for residue 91 as Asn
REFERENCE A53885
#authors Davatelis, G.; Tekamp-Olson, P.; Wolpe, S.D.; Hermesen, K.;
Luedke, C.; Gallegos, C.; Colt, D.; Merryweather, J.;
Cerami, A.
#journal J. Exp. Med. (1989) 170:2189
#contents erratum
#accession A53885
##molecule_type mRNA
##residues 1-92 ##label DAV
#cross-references EMBL:X12531; NID:953122; PID:953123
A30552
REFERENCE
#authors Brown, K.D.; Zurawski, S.M.; Mosmann, T.R.; Zurawski, G.

#journal J. Immunol. (1989) 142:679-687
#title A family of small inducible proteins secreted by leukocytes
are members of a new superfamily that includes leukocyte
and fibroblast-derived inflammatory agents, growth factors,
and indicators of various activation processes.
#cross-references MIMD:89093958
#accession A30552
##molecule_type mRNA
##residues 1-21, 'L', 23-61, 'A', 63-92 ##label BRO
#cross-references GB:M23447; NID:9533240; PID:9533241
JL0088
REFERENCE
#authors Sherry, B.; Tekamp-Olson, P.; Gallegos, C.; Bauer, D.;
Davatelis, G.; Wolpe, S.D.; Masiarz, F.; Colt, D.; Cerami,
A.
#journal J. Exp. Med. (1988) 168:2251-2259
#title Resolution of the two components of macrophage inflammatory
protein 1, and cloning and characterization of one of those
components, macrophage inflammatory protein 1 beta.
#cross-references MIMD:89067830
#accession PS0303
##molecule_type mRNA
##residues 24-33, 'XX', 36-54 ##label SHE
REFERENCE A27596
#authors Wolpe, S.D.; Davatelis, G.; Sherry, B.; Beutler, B.; Hesse,
D.G.; Nguyen, H.T.; Moldawer, L.L.; Nathan, C.F.; Lowry,
S.F.; Cerami, A.
#journal J. Exp. Med. (1988) 167:570-581
#title Macrophages secrete a novel heparin-binding protein with
inflammatory and neutrophil chemokinetic properties.
#cross-references MIMD:88154745
#accession A27596
##molecule_type protein
##residues 24-33, 'XX', 36-42 ##label WOL
#note 26-Met, 30-Pro, and 39-Thr were also found

REFERENCE I56104
#authors Widmer, U.; Yang, Z.; Van Derwater, S.; Manogue, K.R.;
Sherry, B.; Cerami, A.
#journal J. Immunol. (1991) 146:4031-4040
#title Genomic structure of murine macrophage inflammatory
protein-1-alpha and conservation of potential regulatory
sequences with a human homolog, LD78.
#cross-references MIMD:91237116
#accession I56104
##status preliminary; translated from GB/EMBL/DBJ
##molecule_type DNA
##residues 1-92 ##label RES
#cross-references GB:M73061; NID:9199694; PID:9199695
COMMENT This protein is a monokine.

GENETICS
#introns 23/3; 26/1; 63/2
CLASSIFICATION
#superfamily macrophage inflammatory protein
KEYWORDS
#heparin binding
FEATURE
1-23
24-92
#domain signal sequence #status predicted #label SIG\

SUMMARY #length 92 #molecular-weight 10345 #checksum 5009

Query Match 78.6%; Score 66; DB 2; Length 92;
Best Local Similarity 70.0%; Pred. No. 4.28e-02;
Matches 7; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 73 CADSKETRWQ 82
11:111111
QY 1 CADPKQKRWQ 10

RESULT 29
ENTRY C60407 #type fragment
TITLE monocyte adherence-induced protein 5 beta - human (fragment)
ORGANISM #formal_name Homo sapiens #common_name man
DATE 06-Nov-1992 #sequence_revision 06-Nov-1992 #text_change
03-May-1996

```

ACCESSIONS
#journal
#authors
#title
#cross-references MIMD:90257367
#accession
#status
#molecule_type mRNA
#residues
#superfamily macrophage inflammatory protein
#length 50 #checksum 9927

CLASSIFICATION
#length 50 #checksum 9927

Query Match 76.2% Score 64; DB 2; Length 50;
Best Local Similarity 70.0%; Pred. No. 1.04e-01;
Matches 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 32 CADPESKVVQ 41
      1111 : 111
QY 1 CADPKKVVQ 10

RESULT 30
ENTRY
#type complete
A31767
TITLE
macrophage inflammatory protein 1-beta precursor - human
ALTERNATE_NAMES
cytokine HC21; G-26 protein; H400 homolog; lymphocyte
activation gene 1 protein (LAG-1); MIP-beta; pA1744; SCV1A2
protein (misidentification); SIS gamma homolog; T-cell
activation protein 2 (Act-2); T-cell activation protein
gamma
#formal_name Homo sapiens #common_name man
DATE 07-Jun-1990 #sequence_revision 29-May-1998 #text_change
29-May-1998
ACCESSIONS
#journal
#authors
#title
#cross-references MIMD:91061800
#accession
#status
#molecule_type DNA
#residues
#cross-references GB:X53682; NID:934217; PID:934218
#experimental_source natural killer cell, strain CD3-CD2+, F5, SIIIES
A40978
#journal
#authors
#title
#cross-references MIMD:91373378
#accession
#molecule_type DNA
#residues
#cross-references GB:M69201; NID:9178021
#note
A31767
#journal
#authors
#title
#cross-references MIMD:89071764
#accession
#molecule_type mRNA

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#residues 1-92 ##label LIP
##cross-references GB:J04130; NID:q178017; PID:q178018
REFERENCE
#authors Chang, H.C.; Reinherz, E.L.
#journal Eur. J. Immunol. (1989) 19:1045-1051
#title Isolation and characterization of a cDNA encoding a putative cytokine which is induced by stimulation via the CD2 structure on human T lymphocytes.
#cross-references M0ID:89325421
#accession A37411
#molecule-type mRNA
#residues 1-92 ##label CHA
##cross-references GB:M16166; NID:g32035; PID:g32036
REFERENCE
#authors Zipfel, P.F.; Balke, J.; Irving, S.G.; Kelly, K.; Siebenlist, U.
#journal J. Immunol. (1989) 142:1582-1590
#title Mitogenic activation of human T cells induces two closely related genes which share structural similarities with a new family of secreted factors.
#cross-references M0ID:89140347
#accession B30574
#molecule-type mRNA
#residues 1-19,'L',21-92 ##label ZIP
##cross-references GB:M5316; NID:g602454; PID:g602455
REFERENCE
#authors Miller, M.D.; Hata, S.; Malefyt, R.D.W.; Krangel, M.S.
#journal J. Immunol. (1989) 143:2907-2916
#title A novel polypeptide secreted by activated human T lymphocytes.
#cross-references M0ID:90038522
#accession B45817
#molecule-type mRNA
#residues 7-55,'I',57-79,'T',81-92 ##label MIL
##cross-references GB:M57503; NID:g339726; PID:g339727
REFERENCE
#authors Brown, K.D.; Zurawski, S.M.; Mosmann, T.R.; Zurawski, G.
#journal J. Immunol. (1989) 142:679-687
#title A family of small inducible proteins secreted by leukocytes are members of a new superfamily that includes leukocyte and fibroblast-derived inflammatory agents, growth factors, and indicators of various activation processes.
#cross-references M0ID:89093958
#accession D30552
#molecule-type mRNA
#residues 1-39,'REASS',46-92 ##label BRO
##cross-references GB:M23502; NID:g533212; PID:g533213
REFERENCE
#authors Clore, G.M.; Lodi, P.J.; Garrett, D.S.; Gronenborn, A.M.
#submission submitted to the Brookhaven Protein Data Bank, January 1994
#cross-references PDB:1HUM
#contents annotation; conformation and disulfide bond assignments by (1)H-NMR, residues 24-92
COMMENT This protein is secreted by activated lymphocytes and monocytes. It is bound by chemokine (C-C) receptor 5 (see PIR:A43113) and receptor 1 (see PIR:A45177).
GDB:LAG1
#gene
#cross-references GDB:127451; OMIM:153335
#map position 17q21-17q21
#introns 26/1; 64/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS chemotaxis; cytokine; inflammation
FEATURE
1-23 #domain signal sequence #status predicted #label SIG
24-92 #product macrophage inflammatory protein 1-beta #status experimental
#disulfide_bonds #status experimental
#length 92 #molecular-weight 10212 #checksum 7597
SUMMARY
34-58,35-74
Query Match 76.2%; Score 64; DB 1; Length 92;
Best Local Similarity 70.0%; Pied. No. 1.04e-01;
Mismatch 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

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Thu Apr 1 08:26:12 1999

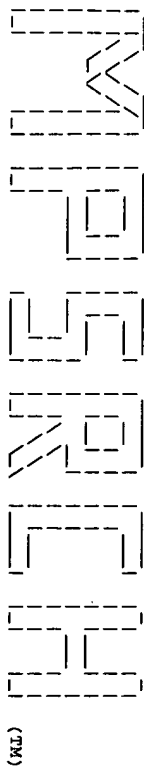
US-08-927-939-7.rpr

Page 13

Db 74 CADPSESMTQ 83
| | | : | | |
QY 1 CADPRQKMTQ 10

Search completed: Thu Apr 1 07:27:32 1999
Job time : 13 secs.

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Msrch_dp protein - protein database search, using Smith-Waterman algorithm
Run on: Thu Apr 1 07:25:50 1999; Mspar time 2.24 Seconds
Tabular output not generated. 119.693 Million cell updates/sec

Title: >US-08-927-939-7
Description: (1-10) from US08927939.pep
Perfect Score: 84
Sequence: 1 CADPKOKWVQ 10

Scoring table:
PAM 150
Gap 15

Searched: 74019 segs, 26840295 residues

Post-processing: Minimum Match 0%
Listing first 100 summaries

Database: swiss-prot36
1:swissprot

Statistics: Mean 24.646; Variance 32.043; scale 0.769

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description	Pred. No.
1	84	100.0	99	1	MCP1_HUMAN	MONOCYTE CHEMOTACTIC P
2	84	100.0	99	1	MCP1_BOVIN	MONOCYTE CHEMOTACTIC P
3	84	100.0	99	1	MCP2_BOVIN	MONOCYTE CHEMOTACTIC P
4	84	100.0	101	1	MCP1_CANFA	MONOCYTE CHEMOTACTIC P
5	84	100.0	125	1	MCP1_RABIT	MONOCYTE CHEMOTACTIC P
6	83	98.8	99	1	MCP1_PIG	MONOCYTE CHEMOTACTIC P
7	80	95.2	98	1	MCP4_HUMAN	MONOCYTE CHEMOTACTIC P
8	77	91.7	96	1	EOTFA_CAVPO	EOTAXIN PRECURSOR (EOS
9	77	91.7	97	1	EOTFA_HUMAN	EOTAXIN PRECURSOR (EOS
10	77	91.7	97	1	EOTFA_MOUSE	EOTAXIN PRECURSOR (EOS
11	77	91.7	97	1	EOTFA_RAT	EOTAXIN PRECURSOR (EOS
12	77	91.7	99	1	MCP3_HUMAN	MONOCYTE CHEMOTACTIC P
13	77	91.7	99	1	MCP2_PIG	MONOCYTE CHEMOTACTIC P
14	77	91.7	120	1	MCP1_CAVPO	MONOCYTE CHEMOTACTIC P
15	73	86.9	92	1	M1A_RAT	MACROPHAGE INFLAMMATOR
16	73	86.9	101	1	M1A_CANFA	MACROPHAGE INFLAMMATOR
17	73	86.9	101	1	M1A_RABIT	MACROPHAGE INFLAMMATOR
18	73	86.9	101	1	M1A_SHEEP	MACROPHAGE INFLAMMATOR
19	73	86.9	103	1	M1A_PIG	MACROPHAGE INFLAMMATOR
20	73	86.9	104	1	M1P4_HUMAN	MACROPHAGE INFLAMMATOR
21	71	84.5	89	1	MCP4_HUMAN	MACROPHAGE INFLAMMATOR
22	71	84.5	99	1	MCP2_HUMAN	MONOCYTE CHEMOTACTIC P
23	70	83.3	101	1	M1B_BOVIN	INTERLEUKIN-8 PRECURSO

24	70	83.3	101	1	M1B_CAVPO	INTERLEUKIN-8 PRECURSO
25	69	82.1	74	1	MCPB_BOVIN	MONOCYTE CHEMOTACTIC P
26	69	82.1	148	1	MCP1_MOUSE	MONOCYTE CHEMOTACTIC P
27	67	79.8	89	1	SDP1_MOUSE	STROMAL CELL-DERIVED F
28	67	79.8	93	1	M3P1_HUMAN	STROMAL CELL-DERIVED F
29	67	79.8	96	1	SDP3_HUMAN	MACROPHAGE INFLAMMATOR
30	67	79.8	99	1	M1B_HUMAN	INTERLEUKIN-8 PRECURSO
31	66	78.6	91	1	M1A_MOUSE	T-CELL SPECIFIC RANTES
32	66	78.6	92	1	M1A_MOUSE	MACROPHAGE INFLAMMATOR
33	66	78.6	92	1	SDP1_RAT	T-CELL SPECIFIC RANTES
34	65	77.4	93	1	CCCL_HUMAN	CHEMOKINE CC-1 PRECURS
35	65	77.4	109	1	CCCL_HUMAN	CHEMOKINE CC-3 PRECURS
36	64	76.2	92	1	M1B_HUMAN	MACROPHAGE INFLAMMATOR
37	64	76.2	92	1	M1A_HUMAN	MACROPHAGE INFLAMMATOR
38	64	76.2	93	1	M1B_HUMAN	TONSILLAR LYMPHOCYTE L
39	64	76.2	97	1	MCP3_MOUSE	MONOCYTE CHEMOTACTIC P
40	63	75.0	101	1	M1B_MACWT	INTERLEUKIN-8 PRECURSO
41	63	75.0	101	1	M1B_CERTO	INTERLEUKIN-8 PRECURSO
42	63	75.0	148	1	MCP1_RAT	MONOCYTE CHEMOTACTIC P
43	62	73.8	114	1	M1B_RAT	LYMPHOTACTIN PRECURSOR
44	61	72.6	92	1	M1B_PIG	LYMPHOTACTIN PRECURSOR
45	61	72.6	114	1	SDP1_PIG	T-CELL SPECIFIC RANTES
46	60	71.4	91	1	SDP1_HUMAN	T-CELL SPECIFIC RANTES
47	60	71.4	91	1	SDP1_CAVPO	T-CELL SPECIFIC RANTES
48	60	71.4	91	1	SDP1_MOUSE	T-CELL SPECIFIC RANTES
49	60	71.4	91	1	SDP1_MOUSE	T-CELL SPECIFIC RANTES
50	58	69.0	90	1	M1B_CHICK	MACROPHAGE INFLAMMATOR
51	56	66.7	114	1	M1B_HUMAN	LYMPHOTACTIN PRECURSOR
52	55	65.5	92	1	M1B_RAT	MACROPHAGE INFLAMMATOR
53	55	65.5	92	1	M1B_RAT	MACROPHAGE INFLAMMATOR
54	54	64.3	98	1	M1B_HUMAN	MACROPHAGE INFLAMMATOR
55	54	64.3	140	1	VA54_HAELN	HYPOTHELTICAL PROTEIN H
56	53	63.1	140	1	VA53_CAVPK	MACROPHAGE INFLAMMATOR
57	52	61.9	92	1	M1B_MOUSE	EMBRYO FIBROBLAST PROT
58	52	61.9	103	1	EMF1_CHICK	TRANSMBRANE PROTEIN
59	52	61.9	1871	1	SEK_HUMAN	C10 PROTEIN PRECURSOR
60	51	60.7	116	1	YDGP_MOUSE	HYPOTHELTICAL 20.8 KD P
61	51	60.7	176	1	YDGP_MOUSE	HYPOTHELTICAL 20.8 KD P
62	51	60.7	188	1	DMHL_PARDE	METHYLAMINE DEHYDROGEN
63	51	60.7	281	1	CD37_MOUSE	LEUKOCYTE ANTIGEN CD37
64	50	59.5	85	1	KOC2_ECOLI	SMALL INDICIBLE CYTOKI
65	50	59.5	92	1	SDP1_MOUSE	SMALL INDICIBLE CYTOKI
66	50	59.5	92	1	TODF_PSEPU	2-HYDROXY-6-OXO-2,4-HE
67	50	59.5	276	1	DMPD_PSESP	2-HYDROXYMUONIC SEMIA
68	50	59.5	283	1	YV3H_YEAST	HYPOTHELTICAL 54.5 KD P
69	50	59.5	694	1	PKML_NPVAC	PUTATIVE POLYNUCLEOTID
70	50	59.5	828	1	BGAL_BRAOT	BETA-GALACTOSIDASE PRE
71	50	59.5	926	1	KINH_NEUCR	KINININ HEAVY CHAIN.
72	49	58.3	251	1	POQC_KLEPN	COENZYME PQQ SYNTHESIS
73	49	58.3	273	1	ENV_FLVCL	ENV POLYPROTEIN PRECUR
74	49	58.3	376	1	YKFC_ECOLI	HYPOTHELTICAL 43.2 KD P
75	49	58.3	532	1	INV2_YEAST	INVERTASE 2 PRECURSOR
76	49	58.3	532	1	INV4_YEAST	INVERTASE 4 PRECURSOR
77	49	58.3	618	1	XYA2_BACST	BETA-XILOSIDASE PRECUR
78	49	58.3	662	1	ENV_FLVBL	ENV POLYPROTEIN PRECUR
79	49	58.3	662	1	ENV_FSVGA	ENV POLYPROTEIN PRECUR
80	49	58.3	668	1	ENV_FLVCG	ENV POLYPROTEIN PRECUR
81	49	58.3	1675	1	CLH_BOVIN	CLATHRIN HEAVY CHAIN.1
82	49	58.3	1675	1	CLH_HUMAN	CLATHRIN HEAVY CHAIN.1
83	49	58.3	1675	1	CLH_RAT	CLATHRIN HEAVY CHAIN.1
84	48	57.1	122	1	M1G_MOUSE	MACROPHAGE INFLAMMATOR
85	48	57.1	196	1	YDGP_HAELN	HYPOTHELTICAL PROTEIN H
86	48	57.1	281	1	CD37_HUMAN	LEUKOCYTE ANTIGEN CD37
87	48	57.1	360	1	HAIA_BOVIN	BOLA CLASS I HISTOCOMP
88	48	57.1	363	1	SD_DROME	SEGREGATION DISORDER
89	48	57.1	456	1	YD45_SCHPO	HYPOTHELTICAL 50.5 KD P
90	48	57.1	477	1	FES_FSVST	TYROSTINE-PROTEIN KINAS
91	48	57.1	505	1	CY62_SOJME	CYCLOCHROME P450 LXVIA
92	48	57.1	534	1	ENV_FSVST	ENV POLYPROTEIN PRECUR
93	48	57.1	609	1	FES_FSVGA	TYROSTINE-PROTEIN KINAS
94	48	57.1	815	1	PHSG_ECOLI	GLYCOCEN PHOSPHORYLASE
95	48	57.1	820	1	FES_FELCA	PROTO-ONCOGENE TYROSIN
96	48	57.1	820	1	FES_MOUSE	PROTO-ONCOGENE TYROSIN

97 48 57.1 822 1 FES.HUMAN PROTO-ONCOGENE TYROSIN 3.15e+01
98 48 57.1 832 1 BGAL.ASPOF BETA-GALACTOSIDASE PRE 3.15e+01
99 47 56.0 592 1 INVL.DAUCO BETA-FRUCTOFURANOSIDAS 4.73e+01
100 47 56.0 1054 1 RDGB.DROME RETINAL DEGENERATION B 4.73e+01

ALIGNMENTS

RESULT 1
ID MCP1.HUMAN STANDARD; PRT; 99 AA.
AC P13500;
DT 01-JAN-1990 (REL. 13, CREATED)
DT 01-JAN-1990 (REL. 13, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE CHEMOTACTIC AND ACTIVATING FACTOR) (MCAF) (MONOCYTE SECRETORY PROTEIN JE)
DE (MONOCYTE CHEMOTRACTANT PROTEIN 1) (HC11) (SMALL INDUCIBLE CYTOKINE A2).
GN SCYA2 OR MCP1.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAFOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 89165862.
RA FURUTANI Y., NOMURA H., NOTAKE M., OYAMADA Y., FUKUI T., YAMADA M.,
RL LARSEN C.G., OPPENHEIM J.J., MATSUSHIMA K.;
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 90097880.
RA ROLLINS B.J., STIER P., ERNST T., WONG G.G.;
RL MOL. CELL. BIOL. 9:4687-4695(1989).
RN [3]
RP SEQUENCE FROM N.A.
RX MEDLINE: 89153605.
RA YOSHIMURA T., YUHKI N., MOORE S.K., APPELLA E., LERMAN M.I.,
RL LEONARD E.J.;
RN [4]
RP FEBS LETT. 244:487-493(1989).
RN [4]
RP SEQUENCE FROM N.A.
RX MEDLINE: 90290466.
RA SHY Y.J., LI Y.S., KOLATUKUDY P.E.;
PL BIOCHEM. BIOPHYS. RES. COMMUN. 169:346-351(1990).
RN [5]
RP SEQUENCE FROM N.A.
RX MEDLINE: 91207938.
RA CHANG H.C., HSU F., FREEMAN G.J., GRIFFIN J.D., REINHERZ E.L.;
RL INT. IMMUNOL. 1:388-399(1989).
RN [6]
RP SEQUENCE FROM N.A.
RX MEDLINE: 94150478.
RA LI Y.S., SHY Y.J., WRIGHT J.G., VALENTE A.J., CORNHILL J.F.,
RL KOLATUKUDY P.E.;
RN [7]
RP MOL. CELL. BIOCHEM. 126:61-68(1993).
RN [7]
RP SEQUENCE FROM N.A.
RX MEDLINE: 92095166.
RA YOSHIMURA T., LEONARD E.J.;
RL ADV. EXP. MED. BIOL. 305:47-56(1991).
RN [8]
RP SEQUENCE OF 24-99.
RX MEDLINE: 89184525.
RA ROBINSON E.A., YOSHIMURA T., LEONARD E.J., TANAKA S., GRIFFIN P.R.,
RA SHABANOWITZ J., HUNT D.F., APPELLA E.;
RL PROC. NATL. ACAD. SCI. U.S.A. 86:1850-1854(1989).
RN [9]
RP SEQUENCE OF 29-53 AND 82-92.
RX MEDLINE: 90211336.
RA DECOCK B., CONINGS R., LENAERTS J.-P., BILIAU A., VAN DAMME J.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 167:904-909(1990).
RN [10]
RP 3D-STRUCTURE MODELLING.

RX MEDLINE: 91312872.
RA GRONERBORN A.M., CLORE G.M.;
RL PROTEIN ENG. 4:263-269(1991).
RN [11]
RP X-RAY CRYSTALLOGRAPHY (1.85 ANGSTROMS).
RX MEDLINE: 97143315.
RA LUBKOWSKI J., BUJACZ G., DOMAILLE P.J., HANDEL T.M., WIODAWER A.;
RL NAT. STRUCT. BIOL. 4:64-69(1997).
RN [12]
RP STRUCTURE BY NMR.
RX MEDLINE: 96234959.
RA HANDEL T.M., DOMAILLE P.J.;
RL BIOCHEMISTRY 35:6569-6584(1996).
RN [13]
RP EFFECT OF DELETION OF N-TERMINAL RESIDUES.
RX MEDLINE: 96195223.
RA WEBER M., DUCUCCI M., BAGGIOLINI M., CLARK-LEWIS I., DAHINDEN C.A.;
RL J. EXP. MED. 183:681-685(1996).
RN [14]
RP NOTAGENESIS.
RX MEDLINE: 94253189.
RA ZHANG Y.J., RUTLEDGE B.J., ROLLINS B.J.;
RL J. BIOL. CHEM. 269:15918-15924(1994).
RN [15]
RP SUBUNIT.
RX MEDLINE: 97053697.
RA KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.;
RL FEBS LETT. 395:277-282(1996).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND BASOPHILS
CC BUT NOT NEUTROPHILS OR EOSINOPHILS. AUGMENTS MONOCYTE ANTI-TUMOR
CC ACTIVITY. HAS BEEN IMPLICATED IN THE PATHOGENESIS OF DISEASES
CC CHARACTERIZED BY MONOCYTIC INFILTRATES, LIKE PSORIASIS, RHEUMATOID
CC ARTHRITIS OR ATHEROSCLEROSIS. MAY BE INVOLVED IN THE RECRUITMENT
CC OF MONOCYTES INTO THE ARTERIAL WALL DURING THE DISEASE PROCESS OF
CC ATHEROSCLEROSIS.
CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM.
CC -1- PTM: PROCESSING AT THE N-TERMINUS CAN REGULATE RECEPTOR AND TARGET
CC CELL SELECTIVITY. DELETION OF THE AMINO-TERMINAL RESIDUE CONVERTS
CC IT FROM AN ACTIVATOR OF BASOPHIL TO AN EOSINOPHIL CHEMOATTRACTANT.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: M31626: G386961; -
DR EMBL: M30816: G386961; JOINED.
DR EMBL: M31625: G386961; JOINED.
DR EMBL: M24545: G307163; -
DR EMBL: M28226: G338009; -
DR EMBL: X14768: G34514; -
DR EMBL: M37719: G487124; -
DR EMBL: M28225: G338007; -
DR EMBL: M28223: G338007; JOINED.
DR EMBL: M28224: G338007; JOINED.
DR EMBL: M2824: G338007; JOINED.
DR EMBL: S69738: G545465; -
DR EMBL: S71513: G240868; -
DR EMBL: A17786: G641145; -
DR PTR: A35474: A35474; -
DR PTR: S03339: S03339.
DR PDB: 1DOK: 12-MAR-97.
DR PDB: 1DOL: 12-MAR-97.
DR PDB: 1DOM: 14-OCT-96.
DR PDB: 1DON: 14-OCT-96.
DR PDB: 1MCA: 15-OCT-94.
DR MIM: 158105; -
DR PROSITE: PS00472; SMALL CYTOKINES CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; 3D-STRUCTURE.
FT CHAIN 1 23
FT SIGNL 1 23
FT 24 99
FT MOD_RES 24 24
FT DISULFID 34 59
FT 35 75
FT CARBOHYD 37 37
FT VARIANT 76 76
FT 24 24
FT MOTAGEN 25 32
FT 25 32

POTENTIAL.
A -> T.
MISSING: LOSS OF ACTIVITY.
MISSING: LOSS OF ACTIVITY.

FT MUTAGEN 24 85 MISSING: 90% REDUCTION IN ACTIVITY.
 FT MUTAGEN 24 91 MISSING: 83% REDUCTION IN ACTIVITY.
 FT MUTAGEN 26 26 D->A: 90% REDUCTION IN ACTIVITY.
 FT MUTAGEN 29 29 N->A: 50% REDUCTION IN ACTIVITY.
 FT MUTAGEN 47 47 R->E: 95% REDUCTION IN ACTIVITY.
 FT MUTAGEN 50 50 S->O: 40% REDUCTION IN ACTIVITY.
 FT MUTAGEN 51 51 Y->D: LOSS OF ACTIVITY.
 FT MUTAGEN 53 53 R->L: LOSS OF ACTIVITY.
 FT MUTAGEN 91 91 D->L: 90% REDUCTION IN ACTIVITY.
 SQ SEQUENCE 99 AA: 11025 MW: 53558695 CRC32;

Query Match Best Local Similarity 100.0%; Score 84; DB 1; Length 99;
 Matches 10; Conservative 0; Pred. No. 5.05e-07; Mismatches 0; Indels 0; Gaps 0;

Db 75 CADPKOKWQ 84
 QY 1 CADPKOKWQ 10

RESULT 2
 ID MCPA_BOVIN STANDARD; PRT; 99 AA.
 AC P28291;
 DT 01-DEC-1992 (REL. 24, CREATED)
 DT 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
 DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1A PRECURSOR (MCP-1A) (MCP-1) (ACIDIC
 DE SEMINAL FLUID PROTEIN).
 OS BOS TAURUS (BOVINE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-SEMINAL PLASMA;
 RX MEDLINE: 92096117.
 RA WEMPE F., HENSCHEN A., SCHEIT K.H.;
 RL DNA CELL BIOL. 10:671-679(1991).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC TISSUE-SEMINAL PLASMA;
 RX MEDLINE: 92181448.
 RA WEMPE F., EINSPIANTER R., SCHEIT K.H.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 183:232-237(1992).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 94338337.
 RA WEMPE F., KUHLMANN J.K., SCHEIT K.H.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 202:1272-1279(1994).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
 CC NEUTROPHILS.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL: L32659; G624394; -.
 CC EMBL: M84602; G163395; -.
 DR PIR: A39296; A39296.
 DR PIR: JC2336; JC2336.
 DR HSSP: P13500; IMCA.
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; SIGNAL.
 FT CHAIN 1 23 BY SIMILARITY.
 FT MOD_RES 24 24 MONOCYTE CHEMOTACTIC PROTEIN 1A.
 FT DISULFID 34 59 PYRROLIDONE CARBOXYLIC ACID (BY
 FT DISULFID 35 75 BY SIMILARITY).
 SQ SEQUENCE 99 AA: 11114 MW: C8F5821D CRC32;

Query Match Best Local Similarity 100.0%; Score 84; DB 1; Length 99;
 Matches 10; Conservative 0; Pred. No. 5.05e-07; Mismatches 0; Indels 0; Gaps 0;

Db 75 CADPKOKWQ 84
 QY 1 CADPKOKWQ 10

QY 1 CADPKOKWQ 10

RESULT 3
 ID MCP2_BOVIN STANDARD; PRT; 99 AA.
 AC 009141;
 DT 01-NOV-1995 (REL. 32, CREATED)
 DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
 DE CHEMOTRACTANT PROTEIN 2).
 GN SCYB8 OR MCP2.
 OS BOS TAURUS (BOVINE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 94114084.
 RA WEMPE F., HANES J., SCHEIT K.H.;
 RL DNA CELL BIOL. 13:1-8(1994).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN
 CC CAN BIND HEPARIN.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER. IN EQUILIBRIUM (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL: S67954; E11856; -.
 CC EMBL: S67956; G544997; -.
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.
 FT SIGNAL 1 23 BY SIMILARITY.
 FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 2.
 FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY
 FT DISULFID 34 59 SIMILARITY).
 FT DISULFID 35 75 BY SIMILARITY.
 SQ SEQUENCE 99 AA: 10900 MW: 9BAZCD26 CRC32;

Query Match Best Local Similarity 100.0%; Score 84; DB 1; Length 99;
 Matches 10; Conservative 0; Pred. No. 5.05e-07; Mismatches 0; Indels 0; Gaps 0;

Db 75 CADPKOKWQ 84
 QY 1 CADPKOKWQ 10

RESULT 4
 ID MCP1_CANFA STANDARD; PRT; 101 AA.
 AC P52203;
 DT 01-OCT-1996 (REL. 34, CREATED)
 DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
 DE CHEMOTRACTANT PROTEIN-1).
 GN SCYB2 OR MCP1.
 OS CANIS FAMILIARIS (DOG).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; CARNIVORA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-UGULAR VEIN ENDOTHELIAL;
 RX MEDLINE: 97176620.
 RA KUMAR A.G., BALLANTYNE C.M., MICHAEL L.H., KUKIELNA G.L., YOUNG K.A.,
 RA LINDSEY M.L., HAWKINS K.K., BIRDSALL H.H., MACRAY C.R., LAROSA G.J.,
 RA ROSEN R.D., SMITH C.W., ENTMAN M.L.;
 RL CIRCULATION 95:693-700(1997).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
 CC NEUTROPHILS. IMPORTANT FACTOR IN THE COURSE OF THE INFLAMMATORY
 CC REACTION TO REPERFUSION OF THE PREVIOUSLY ISCHEMIC MYOCARDIUM.
 CC MAY PLAY A SIGNIFICANT ROLE IN MONOCYTE TRAFFICKING INTO THE
 CC REPERFUSED MYOCARDIUM.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER. IN EQUILIBRIUM (BY SIMILARITY).
 CC -1- INDUCTION: BY TNF-ALPHA.

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CC -1- TISSUE SPECIFICITY: ENDOTHELIUM OF SMALL VEINS AND INTRAFASCICULAR
CC VEINS, AND INFILTRATING LEUKOCYTES.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: U29653; G1144186; -.
DR PROSITE: PS00472; SMALL CYTOKINES, CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23
FT CHAIN 24 101
FT MOD_RES 24 24
FT MONOCYTE CHEMOTACTIC PROTEIN 1.
FT PYRROLIDONE CARBOXYLIC ACID (BY
FT SIMILARITY).
FT DISULFID 34 59
FT DISULFID 35 75
FT BY SIMILARITY.
SQ SEQUENCE 101 AA; 11121 MW; A7075B14 CRC32;

Query Match
Best Local Similarity 100.0%; Score 84; DB 1; Length 101;
Pred. No. 5.05e-07;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 75 CADPROKQWQ 84
|||||
OY 1 CADPROKQWQ 10

RESULT 5
ID MCP1_RABIT STANDARD; PRT; 125 AA.
AC P28292;
DT 01-DEC-1992 (REL. 24, CREATED)
DT 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
GN SCYA2.
OS ORCTOLAGUS CUNICULUS (RABBIT).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; LAGOMORPHA.
RN [1]
RN SEQUENCE FROM N.A.
RC STRAIN=NEW ZEALAND WHITE; TISSUE=SPLEEN;
RX MEDLINE: 91225489.
RA YOSHIMURA T., YOHKI N.;
RL J. IMMUNOL. 146:3483-3488(1991).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS.
CC -1- SUBUNIT: MONOMER OR HOMODIMER. IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: M57440; G165470; -.
DR HSSP: P13500; IMCA.
DR PROSITE: PS00472; SMALL CYTOKINES, CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
FT SIGNAL 1 23
FT CHAIN 24 125
FT MOD_RES 24 24
FT MONOCYTE CHEMOTACTIC PROTEIN 1.
FT PYRROLIDONE CARBOXYLIC ACID (BY
FT SIMILARITY).
FT DISULFID 34 59
FT DISULFID 35 75
FT BY SIMILARITY.
FT CARBOHYD 40 40
FT CARBOHYD 55 55
FT POTENTIAL.
FT CARBOHYD 112 112
FT POTENTIAL.
SQ SEQUENCE 125 AA; 13776 MW; FBAC9D27 CRC32;

Query Match
Best Local Similarity 100.0%; Score 84; DB 1; Length 125;
Pred. No. 5.05e-07;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 75 CADPROKQWQ 84
|||||
OY 1 CADPROKQWQ 10

RESULT 6
ID MCP1_PIG STANDARD; PRT; 99 AA.
AC P42831;

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DT 01-NOV-1995 (REL. 32, CREATED)
DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
GN SCYA2.
OS SUS SCROFA (PIG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLA.
RN [1]
RN SEQUENCE FROM N.A.
RX MEDLINE: 94183284.
RA HOSANG K., KNOKE I., KLAUDINY J., WEMPE F., WUTTE K.H.,
RL BIOCHEM. BIOPHYS. RES. COMMUN. 199:962-968(1994).
RN [2]
RN SEQUENCE FROM N.A.
RC TISSUE-BRAIN;
RA ZACH O.R.F.;
RL SUBMITTED (JUL-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS.
CC -1- SUBUNIT: MONOMER OR HOMODIMER. IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: 248479; G683717; -.
DR PROSITE: PS00472; SMALL CYTOKINES, CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23
FT CHAIN 24 99
FT MONOCYTE CHEMOTACTIC PROTEIN 1.
FT MOD_RES 24 24
FT PYRROLIDONE CARBOXYLIC ACID (BY
FT SIMILARITY).
FT DISULFID 34 59
FT DISULFID 35 75
FT BY SIMILARITY.
SQ SEQUENCE 99 AA; 10976 MW; ECC3AFB4 CRC32;

Query Match
Best Local Similarity 90.0%; Score 83; DB 1; Length 99;
Pred. No. 8.83e-07;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 75 CADPROKQWQ 84
|||||
OY 1 CADPROKQWQ 10

RESULT 7
ID MCP4_HUMAN STANDARD; PRT; 98 AA.
AC Q99616;
DT 15-JUL-1998 (REL. 36, CREATED)
DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 4 PRECURSOR (MCP-4) (MONOCYTE
DE CHEMOATTRACTANT PROTEIN 4) (CR-BETA10) (MCC-1).
GN SCYA13 OR MCP4 OR NCC1.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RN SEQUENCE FROM N.A.
RC TISSUE=HEART;
RX MEDLINE: 97113354.
RA GARCIA-ZEPEDA E.A., COMBADIERE C., ROTHENBERG M.E., SARAFI M.N.,
RA LAVIGNE F., HAMID O., MORPHY P.M., LOSTER A.D.;
RL J. IMMUNOL. 157:5613-5626(1996).
RN [2]
RN SEQUENCE FROM N.A., AND SEQUENCE OF 17-98.
RC TISSUE-FETAL;
RX MEDLINE: 96235049.
RA UGOCCIONI M., LOETSCHER P., FORSMANN U., DEMALD B., LI H., LIMA S.H.,
RA LI Y., KREIDER B., GAROTTA G., THELEN M., BAGGIOLINI M.;
RL J. EXP. MED. 183:2379-2384(1996).
RN [3]
RN SEQUENCE FROM N.A., AND SEQUENCE OF 22-33.
RC TISSUE-FETAL;

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RX MEDLINE: 97341179.
RA BERKHOUT T.A., SRAU H.M., MOORES K., WHITE J.R., ELSHOUBAGI N.,
RA APPELBAUM E., REAPE T.J., BRANNEN M., MAKMAWA J., FOLEY J.J.,
RA SCHMIDT D.B., IMBURGA C., MACNULTY D., MATTHEWS J., O'DONNELL K.,
RA O'SHANNESSEY D., SCOTT M., GROOT P.H.E., MACPHEE C.;
RA J. BIOL. CHEM. 272:16404-16413(1997).
RN [4]
RP SEQUENCE FROM N.A.
RA DANTE M., GIBSON A.;
RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCYTES,
CC BASOPHILS AND EOSINOPHILS, BUT NOT NEUTROPHILS. SIGNALS THROUGH
CC CCR2B AND CCR3 RECEPTORS. PLAYS A ROLE IN THE ACCUMULATION OF
CC LEUKOCYTES AT BOTH SIDES OF ALLERGIC AND NONALLERGIC INFLAMMATION.
CC MAY BE INVOLVED IN THE RECRUITMENT OF MONOCYTES INTO THE ARTERIAL
CC WALL DURING THE DISEASE PROCESS OF ARTERIO-SCLEROSIS. MAY PLAY A
CC ROLE IN THE MONOCYTE ATTRACTION IN TISSUES CHRONICALLY EXPOSED TO
CC EXOGENOUS PATHOGENS.
CC -1- MASS SPECTROMETRY: MW=9314; MW_ERR=30; METHOD-MALDI; RANGE=17-98.
CC -1- MASS SPECTROMETRY: MW=8760; MW_ERR=30; METHOD-MALDI; RANGE=22-98.
CC -1- MASS SPECTROMETRY: MW=8575; MW_ERR=30; METHOD-MALDI; RANGE=24-98.
CC -1- INDUCTION: BY INTERLEUKIN-1 AND TNF-ALPHA.
CC -1- TISSUE SPECIFICITY: WIDELY EXPRESSED. FOUND IN SMALL INTESTINE,
CC THYMUS, COLON, LUNG, TRACHEA, STOMACH AND LYMPH NODE. LOW LEVELS
CC SEEN IN THE PULMONARY ARTERY SMOOTH MUSCLE CELLS.
CC -1- THIS PROTEIN CAN BIND HEPARIN.
CC -1- PTM: ONE MAJOR ISOFORM MCP-4, AND TWO MINOR ISOFORMS (LA)MCP-4 AND
CC (NP)MCP-4 ARE PRODUCED BY DIFFERENTIAL SIGNAL CLEAVAGE.
CC (LA)MCP-4 IS ABOUT 30 FOLD LESS ACTIVE THAN MCP-4.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
CC EMBL: U46767; G1732123; -.
DR EMBL: AC002482; G2340091; -.
DR MIM: 601391; -.
DR PROSITE: PS00472; SMALL CYTOKINES, CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; GLYCOPROTEIN; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23
FT CHAIN 24 98
FT MOD_RES 24 24 MONOCYTE CHEMOTACTIC PROTEIN 4.
FT DISULFID 34 58 BY SIMILARITY.
FT DISULFID 35 74 BY SIMILARITY.
FT CARBOHYD 29 29 POTENTIAL.
SQ SEQUENCE 98 AA; 10986 MW; DF52F6EC CRC32;

Query Match 95.2%; Score 80; DB 1; Length 98;
Best Local Similarity 90.0%; Pred. No. 4.64e-06;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 74 CADPREKRVQ 83
QY 1 CADPRKRVQ 10
RESULT 8
ID EOTA_CAVPO STANDARD: PRT: 96 AA.
AC P80325;
DT 01-JUN-1994 (REL. 29, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
GN SCYAL1.
OS CAVIA PORCELLUS (GUINEA PIG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
CC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RA TISSUE-LUNG;
RC MEDLINE: 95173589.
RA ROTHENBERG M.E., LUSTER A.D., LILLY C.M., DRAZEN J.M., LEDER P.;
RL J. EXP. MED. 181:1211-1216(1995).
RN [2]
RP SEQUENCE FROM N.A.
RA MEDLINE: 95091818.

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RA JOSE P.J., ADCOCK I.M., GRIFFITHS-JOHNSON D.A., BERKMAN N.,
RA WELLS T.C., WILLIAMS T.J., POWER C.A.;
RA BIOCHEM. BIOPHYS. RES. COMMUN. 205:788-794(1994).
RN [3]
RP SEQUENCE OF 24-96.
RC STRAIN-HARTLEY; TISSUE-LUNG;
RX MEDLINE: 94157409.
RA JOSE P.J., GRIFFITHS-JOHNSON D.A., COLLINS P.D., WALSH D.T.,
RA MOOHEL R., TOTTY N.F., TRUONG O., HSUAN J.J., WILLIAMS T.J.;
RL J. EXP. MED. 179:881-887(1994).
CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
CC DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
CC FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.
CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
CC -1- TISSUE SPECIFICITY: LONG.
CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
CC EMBL: U18941; G687656; -.
DR EMBL: X77603; G602552; -.
DR HSSP: P13500; IMCA.
DR PROSITE: PS00472; SMALL CYTOKINES, CC; 1.
KW EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
KW INFLAMMATORY RESPONSE.
FT SIGNAL 1 23
FT CHAIN 24 96 EOTAXIN.
FT DISULFID 31 56 BY SIMILARITY.
FT DISULFID 32 72 BY SIMILARITY.
FT CARBOHYD 93 93 POTENTIAL.
FT CONFLICT 88 88 D -> G (IN REF. 2).
SQ SEQUENCE 96 AA; 10753 MW; DD28C7E5 CRC32;

Query Match 91.7%; Score 77; DB 1; Length 96;
Best Local Similarity 90.0%; Pred. No. 2.39e-05;
Matches 9; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 72 CADPREKRVQ 81
QY 1 CADPRKRVQ 10
RESULT 9
ID EOTA_HUMAN STANDARD: PRT: 97 AA.
AC P51671; P50877; Q92490; Q92491;
DT 01-OCT-1996 (REL. 34, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
GN SCYAL1.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
CC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A.
RA MEDLINE: 96181758.
RA GARCIA-ZEPEDA E.A., ROTHENBERG M.E., OMNBEY T.R., LEDER P.,
RA LUSTER A.D.;
RL NAT. MED. 2:449-456(1996).
RN [2]
RP SEQUENCE FROM N.A.
RA MEDLINE: 96189937.
RA PONATH P.D., QIN S., RINGLER D.J., CLARK-LEWIS I., WANG J., KASSAM N.,
RA SMITH H., SHI X., GONZALO J.A., NEWMAN W., GUTIERREZ-RAVOS J.C.,
RA MACKAY C.R.;
RL J. CLIN. INVEST. 97:604-612(1996).
RN [3]
RP SEQUENCE FROM N.A.
RC TISSUE-SMALL INTESTINE;
RX MEDLINE: 96205964.
RA KITAHARA M., NAKAJIMA T., IMAI T., HARADA S., COMBADIÈRE C.,
RA TIFFANY H.L., MURPHY P.M., YOSHIE O.;
RL J. BIOL. CHEM. 271:7725-7730(1996).
RN [4]

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RP SEQUENCE FROM N.A., SEQUENCE OF 60-65 AND 75-88, AND VARIANTS.
 RC TISSUE-FORESKIN.
 RA MEDLINE; 96374440.
 RA BARTELS J., SCHLUETER C., RICHTER E., NOSO N., KULKE R.,
 RA CHRISTOPHERS E., SCHROEDER J.M.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 225:1045-1051(1996).
 RN [5]
 RP SEQUENCE FROM N.A.
 RC TISSUE-PLACENTA.
 RA MEDLINE; 97312708.
 RA GARCIA-ZEPEDA E.A., ROTHENBERG M.E., WERKOWICZ S., SARAFI M.N.,
 RA MORTON C.C., LUSTER A.D.;
 RL GENOMICS 41:471-476(1997).
 RN [6]
 RP SEQUENCE FROM N.A.
 RC TISSUE-LUNG;
 RA MEDLINE; 97445071.
 RA HEIN H., SCHLUETER C., KULKE R., CHRISTOPHERS E., SCHROEDER J.M.,
 RA BARTELS J.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 237:537-542(1997).
 CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
 CC DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
 CC FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.
 CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
 CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL; U46573; G1280141; -
 DR EMBL; U34780; G1185440; -
 DR EMBL; D49372; G1522441; -
 DR EMBL; Z69291; E221070; -
 DR EMBL; Z75668; E251275; -
 DR EMBL; Z75669; E251258; -
 DR EMBL; U46572; G2088509; -
 DR EMBL; Z92709; E329504; -
 DR MIM; 601156; -
 DR PROSITE; PS00472; SMALL CYTOKINES_CC; 1.
 KW EOSINOPHIL: CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
 KM INFLAMMATORY RESPONSE; POLYMORPHISM.
 FT SIGNAL 1 23
 FT CHAIN 1 24
 FT DISULFID 32 57
 FT DISULFID 33 73
 FT VARIANT 7 7
 FT VARIANT 23 23
 FT VARIANT 51 51
 FT VARIANT 79 79
 FT VARIANT 79 79
 SQ SEQUENCE 97 AA; 10732 MW; 6C0F3D98 CRC32;
 Query Match 91.7%; Score 77; DB 1; Length 97;
 Best Local Similarity 90.0%; Pred. No. 2.39e-05;
 Matches 9; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 Db 73 CADPKKRWQ 82
 QY 1 CADPKKRWQ 10
 RESULT 10
 ID EOTA_MOUSE STANDARD; PRT; 97 AA.
 AC P48298;
 DT 01-FEB-1996 (REL. 33, CREATED)
 DT 01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
 GN SCY11.
 CC MYS MUSCULUS (MURINE).
 OS EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-LUNG;

RX MEDLINE; 96004658.
 RA ROTHENBERG M.E., LUSTER A.D., LEDER P.;
 RL PROC. NATL. ACAD. SCI. U.S.A. 92:8960-8964(1995).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC STRAIN-C57BL/6J; TISSUE-LUNG;
 RX MEDLINE; 96158746.
 RA GONZALO J.-A., JIA G.-Q., AGUIRRE V., FRIEND D., COYLE A.J.,
 RA JENKINS N.A., LIN G.-S., KATZ H., LICHTMAN A., COPELAND N.G., KOPE M.,
 RA GOTTFRED-AMOS J.-C.;
 RL IMMUNITY 4:1-14(1996).
 CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
 CC DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS (A PROMINENT
 CC FEATURE OF ALLERGIC INFLAMMATORY REACTIONS), BUT NOT
 CC LYMPHOCYTES, MACROPHAGES OR NEUTROPHILS.
 CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
 CC -1- TISSUE SPECIFICITY: EXPRESSED CONSTITUTIVELY IN THE THYMUS.
 CC EXPRESSION INDUCIBLE IN THE LUNG (TYPE I ALVEOLAR EPITHELIAL
 CC CELLS), INTESTINE, HEART, SPLEEN, KIDNEY.
 CC -1- INDUCTION: BY INTERFERON-GAMMA AND LIPOPOLYSACCHARIDE (LPS).
 CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL; U26426; G995911; -
 DR EMBL; U40672; G1113937; -
 DR MGD; MG1103576; SCY11.
 DR PROSITE; PS00472; SMALL CYTOKINES_CC; 1.
 KW EOSINOPHIL: CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
 KM INFLAMMATORY RESPONSE.
 FT SIGNAL 1 23
 FT CHAIN 1 24
 FT DISULFID 32 57
 FT DISULFID 33 73
 FT DISULFID 33 73
 SQ SEQUENCE 97 AA; 10893 MW; F85A96BC CRC32;
 Query Match 91.7%; Score 77; DB 1; Length 97;
 Best Local Similarity 90.0%; Pred. No. 2.39e-05;
 Matches 9; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 Db 73 CADPKKRWQ 82
 QY 1 CADPKKRWQ 10
 RESULT 11
 ID EOTA_RAT STANDARD; PRT; 97 AA.
 AC P97545; O08780;
 DT 15-JUL-1998 (REL. 36, CREATED)
 DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
 GN RATTUS NORVEGICUS (RAT).
 OS EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA WILLIAMS C.M., NEWTON D.J., WILSON S.A., COLEMAN J.C.,
 RA FLANAGAN B.F.;
 RL SUBMITTED (DEC-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [2]
 RP SEQUENCE FROM N.A.
 RC TISSUE-LUNG;
 RA ISHII Y.;
 RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
 CC DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
 CC FEATURE OF ALLERGIC INFLAMMATORY REACTIONS (BY SIMILARITY).
 CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
 CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL; Y08358; E274141; -
 DR EMBL; U96637; G2098785; -

DR PROSITE: PS00472: SMALL_CYTOKINES_CC: 1.
KM EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
KW INFLAMMATORY RESPONSE.
FT SIGNAL 1 23 POTENTIAL.
FT CHAIN 24 97 EOTAXIN.
FT DISULFID 32 57 BY SIMILARITY.
FT DISULFID 33 73 BY SIMILARITY.
FT CARBOHYD 94 94 POTENTIAL.
FT CONFLICT 3 3 L -> S (IN REF. 2).
SQ SEQUENCE 97 AA: 10851 MW: 0584ED45 CRC32;

Query Match 91.7%; Score 77; DB 1; Length 97;
Best Local Similarity 90.0%; Pred. No. 2.39e-05;
Matches 9; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 73 CADPKKKWQ 82
|||||
QY 1 CADPKKKWQ 10

RESULT 12
ID MCP3_HUMAN STANDARD: PRT: 99 AA.
AC P80098;
DT 01-DEC-1992 (REL. 24, CREATED)
DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 3 PRECURSOR (MCP-3) (MONOCYTE
DE CHEMOTACTIC PROTEIN 3) (NC28).
GN SCYA7 OR MCP3.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A., AND SEQUENCE OF 31-67 AND 71-99.
RX MEDLINE: 93213290.
RA OPEENAKKER G., FROYEN G., FITTEN P., PROOST P., VAN DAMME J.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 191:535-542(1993).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 94375065.
RA OPEENAKKER G., FITTEN P., NYS G., FROYEN G., VAN ROY N., SPELEMAN F.,
RA LAUREYS G., VAN DAMME J.;
RL GENOMICS 21:403-408(1994).
RN [3]
RP SEQUENCE FROM N.A.
RX MEDLINE: 93305913.
RA MINTY A., CHALON P., GUILLEMOT J.C., KAGHAD M., LIAUZUN P.,
RA MAGAZIN M., MILLOUX B., MINTY C., RAMOND P., VITA N., LUPKER J.,
RA SHIRE D., FERRARA P., CAPUT D.;
RL EUR. CYTOKINE NETW. 4:99-110(1993).
RN [4]
RP SEQUENCE OF 30-99.
RC TISSUE-OSTEOSARCOMA;
RX MEDLINE: 92308855.
RA VAN DAMME J., PROOST P., LENAERTS J.-P., OPEENAKKER G.;
RL J. EXP. MED. 176:59-65(1992).
RN [5]
RP STRUCTURE BY NMR, AND SUBUNIT.
RX MEDLINE: 97053697.
RA KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.;
RL FEBS LETT. 395:277-282(1996).
RN [6]
RP STRUCTURE BY NMR.
RX MEDLINE: 97263733.
RA MEUNIER S., BERNASAU J.-M., GUILLEMOT J.-C., FERRARA P., DARBON H.;
RL BIOCHEMISTRY 36:4412-4422(1997).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND
CC EOSINOPHILS, BUT NOT NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR
CC ACTIVITY. ALSO INDUCES THE RELEASE OF GELATINASE B. THIS PROTEIN
CC CAN BIND HEPARIN.
CC -1- SUBUNIT: MONOMER.
CC -1- PTM: O-GLYCOSYLATED.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE

CC C-C) (CHEMOKINE CC).
DR EMBL: X72308; G313708; ALT_INIT.
DR EMBL: X72309; -; NOT_ANNOTATED_CDS.
DR EMBL: X71087; G288399; -.
DR EMBL: X71087; G288398; ALT_INIT.
DR EMBL: X71087; G288397; ALT_INIT.
DR PIR: JCI478; JCI478.
DR PIR: S32222; S32222.
DR PIR: A54678; A54678.
DR PDB: 1NCV; 15-OCT-97.
DR MIM: 158106; -.
DR PROSITE: PS00472: SMALL_CYTOKINES_CC: 1.
KM CYTOKINE; CHEMOTAXIS; HEPARIN-BINDING; GLYCOPROTEIN; SIGNAL;
KW INFLAMMATORY RESPONSE; 3D-STRUCTURE.
FT SIGNAL 1 23 MONOCYTE CHEMOTACTIC PROTEIN 3.
FT CHAIN 24 99 PYROLIDONE CARBOXYLIC ACID.
FT MOD_RES 34 59 BY SIMILARITY.
FT DISULFID 35 75 BY SIMILARITY.
FT CARBOHYD 29 29 POTENTIAL.
FT CONFLICT 30 30 T -> K (IN REF. 4).
FT CONFLICT 68 70 MISSING (IN REF. 4).
SQ SEQUENCE 99 AA: 11200 MW: 7502E19C CRC32;

Query Match 91.7%; Score 77; DB 1; Length 99;
Best Local Similarity 90.0%; Pred. No. 2.39e-05;
Matches 9; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 75 CADPQKKWQ 84
|||||
QY 1 CADPQKKWQ 10

RESULT 13
ID MCP2_PIG STANDARD: PRT: 99 AA.
AC P49873;
DT 01-OCT-1996 (REL. 34, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
DE CHEMOTACTIC PROTEIN 2).
GN SCYA8 OR MCP2.
OS SUS SCROFA (PIG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 95091716.
RA HOSANG K.K., KNOKE I.I., KLAUDINY J.J., WENPE F.F., WUTKE W.W.,
RA SCHEIT K.K.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 205:148-153(1994).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN
CC CAN BIND HEPARIN.
CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: Z48480; G683719; -.
DR PROSITE: PS00472: SMALL_CYTOKINES_CC: 1.
KM CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23 BY SIMILARITY.
FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 2.
FT MOD_RES 24 24 PYROLIDONE CARBOXYLIC ACID (BY
FT SIMILARITY).
FT DISULFID 34 59 BY SIMILARITY.
FT DISULFID 35 75 BY SIMILARITY.
SQ SEQUENCE 99 AA: 10903 MW: B7620BCF CRC32;

Query Match 91.7%; Score 77; DB 1; Length 99;
Best Local Similarity 90.0%; Pred. No. 2.39e-05;
Matches 9; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 75 CADPQKKWQ 84
|||||

OY 1 CADPKOKWVQ 10

RESULT 14
ID MCP1_CAVPO STANDARD; PRT: 120 AA.
AC Q08782;
DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
DE CHEMOTACTIC PROTEIN-1).
SCY2A OR MCP1.
OS CAVIA PORCELLUS (GUINEA PIG).
OC EURARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-2; TISSUE-SPLEEN;
RX MEDLINE: 93267104.
RA YOSHIMURA T.;
RL J. IMMUNOL. 150:5025-5032(1993).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS.
CC -1- SUBUNIT: MONOMER OR HOMODIMER, IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL; L04985; G349821; -.
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
RW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
FT SIGNAL 1 23 BY SIMILARITY.
FT CHAIN 1 23 MONOCYTE CHEMOTACTIC PROTEIN 1.
FT MOD_RES 24 24 PYROLIDONE CARBOXYLIC ACID (BY
FT DISULFID 33 57 SIMILARITY).
FT DISULFID 34 73 BY SIMILARITY.
FT CARBOHYD 97 97 POTENTIAL.
SQ SEQUENCE 120 AA; 13741 MW; 22PAD257 CRC32;

Query Match 91.7%; Score 77; DB 1; Length 120;
Best Local Similarity 90.0%; Pred. No. 2,39e-05;
Matches 9; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 73 CADPKOKWVQ 82
OY 1 CADPKOKWVQ 10

RESULT 15
ID M1A_RAT STANDARD; PRT: 92 AA.
AC P50229;
DT 01-OCT-1996 (REL. 34, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR (MIP-1-ALPHA).
SCY3 OR MIP1A.
OS RATUS NORVEGICUS (RAT).
OC EURARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-CD-1; TISSUE-LUNG;
RX MEDLINE: 95298037.
RA SHI M.M., GODLESKI J.J., PAULADSKIS J.D.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 211:289-295(1995).
RN [2]
RP SEQUENCE FROM N.A.
RC STRAIN-LONG EVANS; TISSUE-LUNG;
RX MEDLINE: 95238980.
RA SHANLEY T.P., SCHMAL H., FRIEDL H.P., JONES M.L., WARD P.A.;
RL J. IMMUNOL. 154:4793-4802(1995).
RN [3]
RP SEQUENCE OF 24-57.
RC STRAIN-WISTAR;

RX MEDLINE: 96183056.
RA MAKAGAMA H., SHIOYA S., TAKANO K., SHIBATA F., KATO H.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 220:945-948(1996).
CC -1- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.
CC HAS CHEMOTACTIC ACTIVITY FOR MONOCYTES, NEUTROPHILS, EOSINOPHILS,
CC BASOPHILS, AND LYMPHOCYTES. REQUIRED FOR LUNG TNF-ALPHA
CC PRODUCTION, NEUTROPHIL RECRUITMENT AND SUBSEQUENT LUNG INJURY AND
CC MAY FUNCTION AS AN AUTOCHINE MEDIATOR FOR THE MACROPHAGE
CC PRODUCTION OF TNF-ALPHA WHICH IN TURN UP-REGULATES VASCULAR
CC ADHESION MOLECULES REQUIRED FOR NEUTROPHIL INFILUX. THIS PROTEIN
CC BINDS HEPARIN.
CC -1- INDUCTION: BY LIPOLYSACCHARIDE (LPS).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL; U22414; G790633; -.
DR EMBL; U06435; G459150; -.
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
RW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL; HEPARIN-BINDING.
FT SIGNAL 1 23
FT CHAIN 24 92
FT DISULFID 34 57 BY SIMILARITY.
FT DISULFID 35 73 BY SIMILARITY.
FT CONFLICT 6 6 A -> T (IN REF. 2).
FT CONFLICT 57 57 C -> W (IN REF. 2 AND 3).
SQ SEQUENCE 92 AA; 10335 MW; F48CF89F CRC32;

Query Match 86.9%; Score 73; DB 1; Length 92;
Best Local Similarity 80.0%; Pred. No. 2,03e-04;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 73 CADPKOKWVQ 82
OY 1 CADPKOKWVQ 10

RESULT 16
ID I18_CANFA STANDARD; PRT: 101 AA.
AC P41324;
DT 01-FEB-1995 (REL. 31, CREATED)
DT 01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8).
GN I18.
OS CANIS FAMILIARIS (DOG).
OC EURARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; CARNIVORA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 94010328.
RA ISHIKAWA J., SUZUKI S., HOTTA K., HIROTA Y., MIZUNO S., SUZUKI K.;
RL GENE 131:305-306(1993).
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE-LYMPH NODE;
RX MEDLINE: 95127913.
RA MAISONOTO Y., MOHAMED A., ONODERA T., KATO H., OHASHI T.,
RA GOITSUKA R., TSUJIMOTO H., HASEGAWA A., FURUSAWA S., YOSHIMURA K.,
RA ISHIKAWA J., HOTTA K., SUZUKI K., HIROTA Y.;
RL CYTOKINE 6:455-461(1994).
RN [3]
RP SEQUENCE FROM N.A.
RC STRAIN-MONGREL; TISSUE-JUGULAR VEIN;
RX MEDLINE: 95114148.
RA KUKIELKA G.L., SMITH W.C., LAROSA G.J., MANNING A.M.,
RA MENDOZA L.H., DALY T.J., HUGHES B.J., YOUNER K.A., HAWKINS H.K.,
RA MICHAEL L.H., ROT A., ENTMAN M.L.;
RL J. CLIN. INVEST. 95:89-103(1994).
CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
CC BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
CC RESPONSE TO AN INFLAMMATORY STIMULUS.
CC -1- SUBUNIT: HOMODIMER.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE

CC C-X-C) (CHEMOKINE CXCL).
DR EMBL: D28772; G517100; -.
DR EMBL: D14283; G475132; -.
DR EMBL: U10308; G607814; -.
DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 22 BY SIMILARITY.
FT CHAIN 23 101 INTERLEUKIN-8.
FT DISULFID 34 61 BY SIMILARITY.
FT DISULFID 36 77 BY SIMILARITY.
SQ SEQUENCE 101 AA; 11280 MM; 7C49D62D CRC32;
Query Match Score 73; DB 1; Length 101;
Best Local Similarity 80.0%; Pred. No. 2.03e-04;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
Db 77 CLDPKRWQ 86
1 111:1111
QY 1 CADPRKRWQ 10
RESULT 17
ID IL8_RABIT STANDARD; PRT; 101 AA.
AC P19874;
DT 01-FEB-1991 (REL. 17, CREATED)
DT 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8) (NEUTROPHIL ATTRACTANT/ACTIVATION
DE PROTEIN-1) (NAP-1) (PERMEABILITY FACTOR 1) (RPE1).
GN IL8.
OS ORYCTOLAGUS CUNICULUS (RABBIT).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
CC EUTHERIA; LAGOMORPHA.
RN 11
RP SEQUENCE FROM N.A.
RX STRAIN-NEW ZEALAND WHITE; TISSUE-SPLEEN;
RC MEDLINE: 91225489.
RA YOSHIMURA T., YOHKI N.;
RL J. IMMUNOL. 146:3483-3488(1991).
RN 12
RP SEQUENCE OF 23-53.
RC STRAIN-NEW ZEALAND WHITE; TISSUE-PERITONEAL CAVITY;
RX MEDLINE: 91058518.
RA BEURBLEN B.C., COLLINS P.D., JOSE P.J., TOTTY N.F., HSUAN J.,
RA WATKINFIELD M.D., WILLIAMS T.J.;
RL BIOCHEM. J. 271:797-801(1990).
CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
CC BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
CC RESPONSE TO AN INFLAMMATORY STIMULUS.
CC -1- SUBUNIT: HOMODIMER.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
CC C-X-C) (CHEMOKINE CXCL).
DR EMBL: M57439; G165553; -.
DR PIR: S13052; S13052.
DR HSSP: P10145; 31L8.
DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 22
FT CHAIN 23 101 INTERLEUKIN-8.
FT DISULFID 34 61 BY SIMILARITY.
FT DISULFID 36 77 BY SIMILARITY.
FT CONFLICT 50 50 K -> I (IN REF. 2).
SQ SEQUENCE 101 AA; 11402 MM; CB32CC30 CRC32;
Query Match Score 73; DB 1; Length 101;
Best Local Similarity 80.0%; Pred. No. 2.03e-04;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
Db 77 CLDPKRWQ 86
1 111:1111
QY 1 CADPRKRWQ 10

RESULT 18
ID IL8_SHEEP STANDARD; PRT; 101 AA.
AC P36925;
DT 01-JUN-1994 (REL. 29, CREATED)
DT 01-JUN-1994 (REL. 29, LAST SEQUENCE UPDATE)
DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8).
GN IL8.
OS OVIS ARIES (SHEEP).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
CC EUTHERIA; ARTIODACTYLA.
RN 11
RP SEQUENCE FROM N.A.
RX MEDLINE: 95121931.
RA LEGASTELOS I., GREENLAND T., ARNAUD P., MORNEX J.F., CORDIER G.;
RL GENE 150:367-369(1994).
RN 12
RP SEQUENCE FROM N.A.
RX MEDLINE: 95137691.
RA SEOW H.F., YOSHIMURA T., WOOD P.R., COLDFITZ I.G.;
RL IMMUNOL. CELL BIOL. 72:398-405(1994).
CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
CC BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
CC RESPONSE TO AN INFLAMMATORY STIMULUS.
CC -1- SUBUNIT: HOMODIMER.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
CC C-X-C) (CHEMOKINE CXCL).
DR EMBL: X78306; G463254; -.
DR EMBL: S74436; G786591; -.
DR PIR: S42496; S42496.
DR HSSP: P10145; 31L8.
DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 22 BY SIMILARITY.
FT CHAIN 23 101 INTERLEUKIN-8.
FT DISULFID 34 61 BY SIMILARITY.
FT DISULFID 36 77 BY SIMILARITY.
SQ SEQUENCE 101 AA; 11292 MM; 5A574527 CRC32;
Query Match Score 73; DB 1; Length 101;
Best Local Similarity 80.0%; Pred. No. 2.03e-04;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
Db 77 CLDPKRWQ 86
1 111:1111
QY 1 CADPRKRWQ 10
RESULT 19
ID IL8_PIG STANDARD; PRT; 103 AA.
AC P26894; P22951;
DT 01-AUG-1991 (REL. 19, CREATED)
DT 01-AUG-1992 (REL. 23, LAST SEQUENCE UPDATE)
DT 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8) (ALVEOLAR MACROPHAGE CHEMOTACTIC FACTOR
DE I) (AMCF-1).
GN IL8.
OS SUS SCROFA (PIG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
CC EUTHERIA; ARTIODACTYLA.
RN 11
RP SEQUENCE FROM N.A.
RX MEDLINE: 94103307.
RA LIN G., PEARSON A.E., SCAMURRA R.W., ZHOU Y., BAARSCH M.J.,
RA WEISS D.J., MURTAUGH M.P.;
RL J. BIOL. CHEM. 269:77-85(1994).
RN 12
RP SEQUENCE FROM N.A.
RA SANJANMALA M.;
RL SUBMITTED (JUL-1991) TO EMBL/GENBANK/DBJ DATA BANKS.
RN 13

CC -1- INDUCTION: BY LIPOPOLYSACCHARIDE (LPS).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
DR EMBL: AB000221: D1022520; -.
DR EMBL: Y13710; E321838; -.
DR PROSITE: PS00472: SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 20
FT CHAIN 21 89
FT DISULFID 30 54
FT DISULFID 31 70
SQ SEQUENCE 89 AA: 9849 MW: 052AA3DC CRC32;
Query Match 84.5%; Score 71; DB 1; Length 89;
Best Local Similarity 80.0%; Pred. No. 5.81e-04;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
Db 70 CADPKKKWQ 79
Qy 1 CADPKKKWQ 10
RESULT 22
ID MCP2_HUMAN STANDARD; PRT; 99 AA.
AC P80075; P78388;
DT 01-DEC-1992 (REL. 24, CREATED)
DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
DE CHEMOTACTIC PROTEIN 2) (HC14).
OS SCY48 OR SCY40 OR MCP2.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
NM [1]
RP SEQUENCE FROM N.A., AND VARIANT GLN-69.
RX MEDLINE: 92237052.
RA VAN COLLE E., FITTEN P., NOMIYAMA H., SAKAKI Y., MIURA R., YOSHIE O.,
RA VAN DAME J., OPDENAKKER G.;
RL GENOMICS 40:323-331(1997).
RN [2]
RP SEQUENCE FROM N.A., AND VARIANT GLN-69.
RC TISSUE-BONE MARROW;
RX MEDLINE: 97224420.
RA VAN COLLE E., FROYEN F., NOMIYAMA H., MIURA R., FITTEN P.,
RA VAN AELST I., VAN DAME J., OPDENAKKER G.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 231:726-730(1997).
RN [3]
RP SEQUENCE OF 23-99 FROM N.A.
RX MEDLINE: 91207938.
RA CHANG H.C., HSU F., FREEMAN G.J., GRIFFIN J.D., REINHERZ E.L.;
RL INT. IMMUNOL. 1:388-399(1989).
RN [4]
RP SEQUENCE OF 26-99.
RC TISSUE-OSTEOSARCOMA;
RX MEDLINE: 92308855.
RA VAN DAME J., PROOST P., LENAERTS J.-P., OPDENAKKER G.;
RL J. EXP. MED. 176:59-65(1992).
RN [5]
RP SUBUNIT.
RX MEDLINE: 97053697.
RA KIM K.-S., RAJAKATHANAM K., CLARK-LEWIS I., SYKES B.D.;
RL FEBS LETT. 395:277-282(1996).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCYTES,
CC BASOPHILS AND EOSINOPHILS. MAY PLAY A ROLE IN NEOPLASIA AND
CC INFLAMMATORY HOST RESPONSES. THIS PROTEIN CAN BIND HEPARIN.
CC -1- SUBUNIT: MONOMER OR HOMODIMER, IN EQUILIBRIUM.
CC -1- TISSUE SPECIFICITY: HIGHEST EXPRESSION FOUND IN THE SMALL
CC INTESTINE AND PERIPHERAL BLOOD CELLS. INTERMEDIATE LEVELS SEEN IN
CC THE HEART, PLACENTA, LUNG, SKELETAL MUSCLE, THYMUS, COLON, OVARY,
CC SPINAL CORD AND PANCREAS. LOW LEVELS SEEN IN THE BRAIN, LIVER,
CC SPLEEN AND PROSTATE.
CC -1- INDUCTION: BY INTERFERON GAMMA, MITOGENS AND INTERLEUKIN-1.

CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
DR EMBL: X99886; E279350; ALT_INIT.
DR EMBL: Y10802; E294088; -.
DR HSSP: P13500; IMCA.
DR MIM: 602283; -.
DR PROSITE: PS00472: SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE;
KM POLYMORPHISM.
FT SIGNAL 1 23
FT CHAIN 24 99
FT MOD_RES 24 24
FT DISULFID 34 59
FT DISULFID 35 75
FT VARIANT 69 69
SQ SEQUENCE 99 AA: 11246 MW: 5DD5C20 CRC32;
Query Match 84.5%; Score 71; DB 1; Length 99;
Best Local Similarity 70.0%; Pred. No. 5.81e-04;
Matches 7; Conservative 3; Mismatches 0; Indels 0; Gaps 0;
Db 75 CADPKKKWQ 84
Qy 1 CADPKKKWQ 10
RESULT 23
ID IL8_BOVIN STANDARD; PRT; 101 AA.
AC P79255;
DT 01-NOV-1997 (REL. 35, CREATED)
DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8).
GN IL8.
OS BOS TAURUS (BOVINE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLA.
NM [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 96304552.
RA MORSEY M.A., POPOWYCH Y., KOWALSKI J., GERLACH G., GODSON D.,
RA CAMPOS M., BABIK L.A.;
RL MICROB. PATHOG. 20:203-212(1996).
CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
CC BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
CC RESPONSE TO AN INFLAMMATORY STIMULUS (BY SIMILARITY).
CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
C-X-C) (CHEMOKINE CX).
DR EMBL: S82598; G1699354; -.
DR PROSITE: PS00471: SMALL_CYTOKINES_CXC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 22
FT CHAIN 23 101
FT DISULFID 34 61
FT DISULFID 36 77
SQ SEQUENCE 101 AA: 11291 MW: 0E39C526 CRC32;
Query Match 83.3%; Score 70; DB 1; Length 101;
Best Local Similarity 70.0%; Pred. No. 9.79e-04;
Matches 7; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
Db 77 CLNPKKKWQ 86
Qy 1 CADPKKKWQ 10
RESULT 24
ID IL8_CAVPO STANDARD; PRT; 101 AA.
AC P49113;
DT 01-FEB-1996 (REL. 33, CREATED)
DT 01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)

ID	RESULT	26	STANDARD	PRT	148 AA.
AC	MCPI_MOUSE				
AC	P10148				
DT	01-MAR-1989	(REL. 10, CREATED)			
DT	01-MAR-1989	(REL. 10, LAST SEQUENCE UPDATE)			
DT	15-JUL-1998	(REL. 36, LAST ANNOTATION UPDATE)			
DE	MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (PLATELET-DERIVED GROWTH FACTOR-INDUCIBLE PROTEIN JE).				
DE	SCYA2 OR MCP1 OR JE.				
OS	MUS MUSCULUS (MOUSE).				
OC	EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA; EUTHERIA; RODENTIA.				
RN	[1]				
RP	SEQUENCE FROM N.A.				
RX	MEDLINE; 89093129.				
RA	KAMAHARA R.S., DEUEL T.F.;				
RL	J. BIOL. CHEM. 264:679-682(1989).				
RN	[2]				
RP	SEQUENCE FROM N.A.				
RX	MEDLINE; 88234501.				
RA	ROLLINS B.J., MORRISON E.D., STILES C.D.;				
RL	PROC. NATL. ACAD. SCI. U.S.A. 85:3738-3742(1988).				
RN	[3]				
RP	SEQUENCE OF 26-42.				
RX	MEDLINE; 91293127.				
RA	VAN DAMME J., DECOCK B., BERTINI R., CONINGS R., LEVAERTS J.-P.,				
RA	POT W., OPENNAKER G., MANTOVANI A.;				
RL	EUR. J. BIOCHEM. 199:223-229(1991).				
CC	-1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT NEUTROPHILS.				
CC	-1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).				
CC	-1- INDUCTION: BY PLATELET-DERIVED GROWTH FACTOR.				
CC	-1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).				
CC	EMBL; J04467; G387169; -.				
DR	EMBL; M19681; G387168; -.				
DR	PIR; A30209; A30209.				
DR	PIR; A30861; A30861.				
DR	PIR; S16226; S16226.				
DR	HSSP; P13500; IMCA.				
DR	KMD; MG1:98259; SCTA2.				
DR	PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.				
KW	CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.				
FT	SIGNAL	1	23		
FT	CHAIN	24	148		
FT	MOD_RES	24	24		
FT	DISULEID	34	59		
FT	DISULEID	35	75		
FT	CARBOHYD	126	126		
QY	SEQUENCE	148 AA;	15326 MM;	B7572BCC	CNC32;
QY	Query Match	82.1%;	Score 69;	DB 1;	Length 148;
QY	Best Local Similarity	80.0%;	Pred. No. 1.64e-03;		
QY	Matches	8;	Conservative	0;	Mismatches 2;
QY					Indels 0;
QY					Gaps 0;
QY	1 CADPKKRWQ 10				
QY	75 CADPKKRWQ 84				
QY	|||||				
QY	|||||				
QY	|||||				
QY	1 CADPKKRWQ 10				
RESULT	27				
ID	SDFL_MOUSE	STANDARD;	PRT;	89 AA.	
AC	P40224;				
DT	01-FEB-1995	(REL. 31, CREATED)			
DT	01-FEB-1995	(REL. 31, LAST SEQUENCE UPDATE)			
DT	01-NOV-1997	(REL. 35, LAST ANNOTATION UPDATE)			
DE	STROMAL CELL-DERIVED FACTOR 1 PRECURSOR (SDF-1) (PRE-B CELL GROWTH STIMULATING FACTOR) (PBSF) (12-O-TETRADECANOTRIPHOSBU 13-ACETATE				
DE	REPRESSING PROTEIN 1) (TPRI1) (THYMIC LYMPHOMA CELL STIMULATING FACTOR)				

DE (TUSF).
GN SDF1.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 94181581.
RA NAGASAWA T., KIKUTANI H., KISHIMOTO T.,
RL PROC. NATL. ACAD. SCI. U.S.A. 91:2305-2309(1994).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 93342488.
RA TASHIRO K., TADA H., HEIKER R., SHIROZU M., NAKANO T., HONJO T.,
RL SCIENCE 261:600-603(1993).
RN [3]
RP SEQUENCE FROM N.A.
RX MEDLINE: 95073497.
RA JIANG W., ZHOU P., KAHN S.M., TOMITA N., JOHNSON M.D.,
RL EXP. CELL RES. 215:284-293(1994).
RN [4]
RP SEQUENCE FROM N.A.
RC STRAIN-AKR/J;
RA NOMURA M., NAKATA Y., UZAMA A., NOSE M., AKASHI M., SUZUKI G.,
RL SUBMITTED (DEC-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -1- FUNCTION: CHEMOTACTANT ACTIVE ON T-LYMPHOCYTES, MONOCYTES, BUT
CC NOT NEUTROPHILS.
CC -1- FUNCTION: STIMULATES THE PROLIFERATION OF BONE MARROW-DERIVED B
CC PRENATOR CELLS IN THE PRESENCE OF IL-7 AS WELL AS GROWTH OF THE
CC STROMAL CELL-DEPENDENT B-CELL CLONE DM34 CELLS.
CC -1- ALTERNATIVE PRODUCTS: TWO DIFFERENT FORMS (ALPHA AND BETA) ARE
CC PROBABLY GENERATED BY ALTERNATIVE SPLICING.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
CC C-X-C) (CHEMOKINE CXC).
DR EMBL: D21072; G468457; -.
DR EMBL: L12029; G393180; -.
DR EMBL: L12030; G393182; -.
DR EMBL: S74318; G786394; -.
DR EMBL: D43804; G1304174; -.
DR EMBL: D43805; G1304175; -.
DR PIR: A53497; A53497.
DR MGD: MGI:103556; SDF1.
DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; FALSE_NEG.
KW CYTOKINE; CHEMOTAXIS; GROWTH FACTOR; SIGNAL; ALTERNATIVE SPLICING.
FT SIGNAL 1 19
FT CHAIN 20 89
FT DISULFID 30 55
FT DISULFID 32 71
FT VARSPLIC 89 89
SQ SEQUENCE 89 AA; 10032 MW; 222C4E52 CRC32;

Query Match 79.8%; Score 67; DB 1; Length 89;
Best Local Similarity 70.0%; Pred. No. 4.57e-03;
Matches 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 71 CIDPRKXWQ 80
QY 1 CADPRKXWQ 10

RESULT 29
ID SDF1_HUMAN STANDARD; PRT; 93 AA.
AC P48061;
DT 01-FEB-1996 (REL. 33, CREATED)
DT 01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE STROMAL CELL-DERIVED FACTOR 1 PRECURSOR (SDF-1) (PRE-B CELL GROWTH
DE STIMULATING FACTOR) (PBSF).
GN SDF1.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.

RN [1]
RP SEQUENCE FROM N.A.
RL SPOTILIA L.D.;
RL SUBMITTED (OCT-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 96039262.
RA SHIROZU M., NAKANO T., INAZAWA J., TASHIRO K., TADA H.,
RA SHIOHARA T., HONJO T.,
RL GENOMICS 28:495-500(1995).
RN [3]
RP STRUCTURE BY NMR OF 22-88.
RX MEDLINE: 98046030.
RA CRUMP M.P., GONG J.H., LOETSCHER P., RAJARATHNAM K., AMARA A.,
RA ARENZANA-SEISDEDOS F., VIRELIZIER J.L., BAGGIOLINI M., SYKES B.D.,
RA CLARK-LEWIS I.,
RL EMBO J. 16:6996-7007(1997).
CC -1- FUNCTION: CHEMOTACTANT ACTIVE ON T-LYMPHOCYTES, MONOCYTES, BUT
CC NOT NEUTROPHILS.
CC -1- ALTERNATIVE PRODUCTS: TWO DIFFERENT FORMS (ALPHA AND BETA) ARE
CC PROBABLY GENERATED BY ALTERNATIVE SPLICING.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
CC C-X-C) (CHEMOKINE CXC).
DR EMBL: U16752; G571508; -.
DR EMBL: U36033; G1220366; -.
DR PDB: 1SDF; 28-JAN-98.
DR PDB: 2SDF; 17-JUN-98.
DR MIM: 600835; -.
DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; FALSE_NEG.
KW CYTOKINE; CHEMOTAXIS; GROWTH FACTOR; SIGNAL; ALTERNATIVE SPLICING;
KW 3D-STRUCTURE.
FT SIGNAL 1 19
FT CHAIN 20 93
FT DISULFID 30 55
FT DISULFID 32 71
SQ SEQUENCE 93 AA; 10666 MW; 4B9911C7 CRC32;

Query Match 79.8%; Score 67; DB 1; Length 93;
Best Local Similarity 70.0%; Pred. No. 4.57e-03;
Matches 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 71 CIDPRKXWQ 80
QY 1 CADPRKXWQ 10

RESULT 29
ID M13A_HUMAN STANDARD; PRT; 96 AA.
AC P78556;
DT 01-NOV-1997 (REL. 35, CREATED)
DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MACROPHAGE INFLAMMATORY PROTEIN 3 ALPHA PRECURSOR (MIP-3-ALPHA) (LIVER
DE AND ACTIVATION-REGULATED CHEMOKINE) (CC CHEMOKINE LARC).
GN SCV420 OR MIP3A OR LARC.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 97166046.
RA ROSSI D.L., VICARI A.P., FRANZ-BACON K., MCCLANAHAN T.K., ZLOTNIK A.,
RL J. IMMUNOL. 158:1033-1036(1997).
RN [2]
RP SEQUENCE FROM N.A., AND PARTIAL SEQUENCE.
RC TISSUE-LIVER;
RX MEDLINE: 97190319.
RA HIESHIMA K., IMAI T., OPDENAKKER G., VAN DAMME J., KUSUDA J.,
RA TEI H., SAKAKI Y., TAKATSUKI K., MIURA R., YOSHIE O., NOMIYAMA H.,
RL J. BIOL. CHEM. 272:5846-5853(1997).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS LYMPHOCYTES AND,
CC SLIGHTLY, NEUTROPHILS, BUT NOT MONOCYTES.
CC -1- TISSUE SPECIFICITY: EXPRESSED PREDOMINANTLY IN THE LIVER, LYMPH

CC NODES, APPENDIX, PBL, AND FETAL LUNG. LOW LEVELS SEEN IN THYMUS,
 CC PROSTATE, TESTIS, SMALL INTESTINE AND COLON.
 CC -1- INDUCTION: BY LIPOPOLYSACCHARIDE (LPS) AND GAMMA-IFN. REPRESSED BY
 CC IL-10.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC DR EMBL: U77035; G1790925; -
 CC DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 CC CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 CC SIGNAL
 CC CHAIN 1 26
 CC DISULFID 27 96 MACROPHAGE INFLAMMATORY PROTEIN 3 ALPHA.
 CC DISULFID 32 58 BY SIMILARITY.
 CC DISULFID 33 74 BY SIMILARITY.
 CC SEQUENCE 96 AA; 10762 MF; DBAC0235 CRC32;
 CC
 CC Query Match 79.8%; Score 67; DB 1; Length 96;
 CC Best Local Similarity 77.8%; Pred. No. 4.57e-03;
 CC Matches 7; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
 CC
 Db 74 CANPROTIV 82
 QY 1 CADPROKMY 9
 ID IL8_HUMAN STANDARD: PRT; 99 AA.
 AC P10145;
 DT 01-MAR-1989 (REL. 10, CREATED)
 DT 01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE INTERLEUKIN-8 PRECURSOR (IL-8) (MONOCYTE-DERIVED NEUTROPHIL
 DE CHEMOTACTIC FACTOR) (MNCF) (T-CELL CHEMOTACTIC FACTOR) (NEUTROPHIL-
 DE ACTIVATING PROTEIN 1) (NAP-1) (LYMPHOCYTE-DERIVED NEUTROPHIL-
 DE ACTIVATING FACTOR) (LYNAP) (PROTEIN 3-10C) (NEUTROPHIL-ACTIVATING
 DE FACTOR) (NAF) (GRANULOCYTE CHEMOTACTIC PROTEIN 1) (GCP-1) (EMOCTAKIN).
 GN IL8.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUHERIA; PRIMATES.
 RN (1)
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 88258376.
 RA MATSUSHIMA K., MORISHITA K., YOSHIMURA T., LAVU S., KOBAYASHI Y.,
 RA LEW W., APPELLA E., KUNG H., LEONARD E.J., OPPENHEIM J.J.;
 RN J. EXP. MED. 167:1883-1893(1988).
 RN (2)
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 87224164.
 RA SCHMID J., WEISSMANN C.;
 RN J. IMMUNOL. 139:250-256(1987).
 RN (3)
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 89313739.
 RA KOWALSKI J., DENHARDT D.T.;
 RN MOL. CELL. BIOL. 9:1946-1957(1989).
 RN (4)
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 89309826.
 RA MUKAIDA N., SHIROO M., MATSUSHIMA K.;
 RN J. IMMUNOL. 143:1366-1371(1989).
 RN (5)
 RP SEQUENCE FROM N.A.
 RA ISHIKAWA J.;
 RN SUBMITTED (JAN-1993) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN (6)
 RP SEQUENCE OF 23-46.
 RA MEDLINE: 89246368.
 RA GOLDS E.E., MASON P., NYIKOS P.;
 RN BIOCHEM. J. 259:585-588(1989).
 RN (7)
 RP SEQUENCE OF 23-54.
 RX MEDLINE: 89279141.

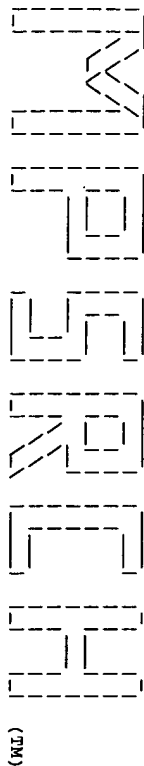
RA SUZUKI K., MIYASAKA H., OTA H., YAMAKAWA Y., TAGAWA M., KURAMOTO A.,
 RA MIZUNO S.;
 RN J. EXP. MED. 169:1895-1901(1989).
 RN (8)
 RP SEQUENCE OF 28-99.
 RX MEDLINE: 88162914.
 RA GREGORY H., YOUNG J., SCHROEDER J.M., MROWIETZ U., CHRISTOPHERS E.;
 RN BIOCHEM. BIOPHYS. RES. COMMUN. 151:883-890(1988).
 RN (9)
 RP SEQUENCE OF 28-59.
 RX MEDLINE: 88106502.
 RA WALZ A., PEYER P., ASCHAUER H., BAGGIOLINI M.;
 RN BIOCHEM. BIOPHYS. RES. COMMUN. 149:755-761(1987).
 RN (10)
 RP SEQUENCE OF 28-69.
 RX MEDLINE: 88097462.
 RA YOSHIMURA T., MATSUSHIMA K., TANAKA S., ROBINSON E.A., APPELLA E.,
 RA OPPENHEIM J.J., LEONARD E.J.;
 RN PROC. NATL. ACAD. SCI. U.S.A. 84:9233-9237(1987).
 RN (11)
 RP STRUCTURE BY NMR.
 RX MEDLINE: 90234679.
 RA CLORE G.M., APPELLA E., YAMADA M., MATSUSHIMA K., GRONENBORN A.M.;
 RN BIOCHEMISTRY 29:1689-1696(1990).
 RN (12)
 RP X-RAY CRYSTALLOGRAPHY (1.6 ANGSTROMS).
 RX MEDLINE: 90216714.
 RA BALDWIN E.T., FRANKLIN K.A., APPELLA E., YAMADA M., MATSUSHIMA K.,
 RA WLODAWER A., WEBER I.T.;
 RN J. BIOL. CHEM. 265:6851-6853(1990).
 RN (13)
 RP X-RAY CRYSTALLOGRAPHY, AND STRUCTURE BY NMR.
 RX MEDLINE: 91171286.
 RA CLORE G.M., GRONENBORN A.M.;
 RN J. MOL. BIOL. 217:611-620(1991).
 RN (14)
 RP X-RAY CRYSTALLOGRAPHY (1.6 ANGSTROMS), AND STRUCTURE BY NMR.
 RX MEDLINE: 91110556.
 RA BALDWIN E.T., WEBER I.T., ST CHARLES R., XUAN J.C., APPELLA E.,
 RA YAMADA M., MATSUSHIMA K., EDWARDS B.F., CLORE G.M., GRONENBORN A.M.;
 RN PROC. NATL. ACAD. SCI. U.S.A. 88:502-506(1991).
 RN (15)
 RP N-TERMINAL FORMS.
 RX MEDLINE: 91006326.
 RA VAN DAMME J., RAMPART M., CONING R., DECOCK B., VAN OSSELAER N.,
 RA WILLEMS J., BILLIAU A.;
 RN EUR. J. IMMUNOL. 20:2113-2118(1990).
 RN (16)
 RP N-TERMINAL FORMS.
 RX MEDLINE: 89231715.
 RA VAN DAMME J., VAN BEEDEN J., CONINGS R., DECOCK B., BILLIAU A.;
 RN EUR. J. BIOCHEM. 181:337-344(1989).
 RN (17)
 RP SYNTHESIS OF 28-99.
 RX MEDLINE: 91175767.
 RA CLARK-LEWIS I., MOSE B., WALZ A., BAGGIOLINI M., SCOTT G.J.,
 RA AEBERSOLD R.;
 RN BIOCHEMISTRY 30:3128-3135(1991).
 RN (18)
 RP REVIEW.
 RX MEDLINE: 92347562.
 RA BAGGIOLINI M., CLARK-LEWIS I.;
 RN FEBS LETT. 307:97-101(1992).
 CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
 CC BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
 CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
 CC RESPONSE TO AN INFLAMMATORY STIMULUS.
 CC -1- SUBUNIT: HOMODIMER.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 CC C-X-C) (CHEMOKINE CXCL).
 CC EMBL: Y00787; G34519; -
 DR EMBL: M17017; G179580; -
 DR EMBL: M26383; G188628; -

DR EMBL: M28130; G186368; -
DR EMBL: D14283; G219916; -
DR PIR: A37034; A37034.
DR PIR: S03975; S03975.
DR PIR: S04216; S04216.
DR PDB: 1IL8; 15-JAN-91.
DR PDB: 2IL8; 15-JAN-91.
DR PDB: 3IL8; 15-OCT-92.
DR PDB: 1ICW; 12-MAR-97.
DR PDB: 1IKL; 15-OCT-95.
DR PDB: 1IKM; 15-OCT-95.
DR MIM: 146930; -
DR PROSITE: PS00471; SMALL CYTOKINES, CXCL
CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL; 3D-STRUCTURE.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL; 3D-STRUCTURE.
FT SIGNAL 1 22
FT CHAIN 1 99 INTERLEUKIN-8.
FT PROPEP 23 30 ONE OR MORE OF THESE RESIDUES ARE MISSING
IN SOME MATURE FORMS OF IL-8.
FT DISULFID 34 61 R -> L (IN REF. 7).
FT DISULFID 36 77
FT CONFLICT 53 53
FT HELIX 46 48
FT STRAND 49 55
FT STRAND 58 58
FT TURN 59 60
FT STRAND 61 61
FT STRAND 65 70
FT TURN 71 72
FT STRAND 75 78
FT TURN 80 81
FT HELIX 83 97
FT TURN 98 98
SQ SEQUENCE 99 AA: 11098 MW: 89D1891F CRC32;
Query Match 79.8%; Score 67; DB 1; Length 99;
Best Local Similarity 70.0%; Pred. No. 4,57e-03;
Matches 7; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 77 CDDPKENWVQ 86
QY 1 CADPKOKWVQ 10

Search completed: Thu Apr 1 07:26:01 1999
Job time : 11 secs.

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MSPRCH_PP protein - protein database search, using Smith-Waterman algorithm

Run on: Thu Apr 1 07:26:20 1999; MasPar time 4.80 Seconds

Tabular output not generated. 115.008 Million cell updates/sec

Title: >US-08-927-939-7

Description: (1-10) from US08927939.pep

Sequence: 84
1 CADPKQKRWQ 10Scoring table: PAM 150
Gap 15

Searched: 180763 seqs, 55169189 residues

Post-processing: Minimum Match 0%
Listing first 100 summaries

Database:

sptrembl8
1:sp_archaea 2:sp_bacteria 3:sp_fungi 4:sp_human
5:sp_invertebrate 6:sp_mammal 7:sp_mhc 8:sp_organelle
9:sp_phase 10:sp_plant 11:sp_protein 12:sp_unclassified
13:sp_vertebrate 14:sp_virus

Statistics: Mean 24.743; Variance 35.010; scale 0.707

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result	No.	Score	Query Match	Length	ID	Description	Pred. No.
1	80	95.2	395	11	035933	FRACTALKTINE.	6.64e-05
2	80	95.2	395	11	035188	NEUROFACIN.	6.64e-05
3	73	86.9	119	4	000175	MPF-2.	2.14e-03
4	71	84.5	97	11	089093	CC CHEMOKINE ST38 PREC	5.65e-03
5	68	81.0	134	4	000585	BETA CHEMOKINE EXODUS-	2.38e-02
6	67	79.8	95	4	096664	CHEMOKINE EXODUS.	3.77e-02
7	67	79.8	96	11	P97884	CC CHEMOKINE EXODUS.	3.77e-02
8	66	78.6	97	13	057411	LYMPHOTACTIN PRECURSOR	6.01e-02
9	66	78.6	387	4	P78423	CX3C CHEMOKINE PRECURS	6.01e-02
10	64	76.2	80	4	014745	LD78 ALPHA BETA PRECUR	1.51e-01
11	63	75.0	92	11	088430	CC CHEMOKINE ABCD-1.	2.38e-01
12	62	73.8	101	13	093238	CC CHEMOKINE-1.	3.74e-01
13	60	71.4	91	4	043646	RANTES PRECURSOR.	9.12e-01
14	59	70.2	109	11	055038	B LYMPHOCYTE CHEMOKIN	9.12e-01
15	59	70.2	120	4	015467	IL-10-INDUCIBLE CHEMOK	1.41e+00
16	59	70.2	187	4	083516	HYPOHETICAL 21.4 KD P	1.41e+00
17	58	69.0	133	11	009002	SMALL INDUCIBLE CYTOKI	2.19e+00
18	58	69.0	133	11	009006	BETA CHEMOKINE EXODUS	2.19e+00
19	58	69.0	1053	2	084834	RIBONUCLEOSIDE REDUCTA	2.19e+00
20	57	67.9	95	14	Q98158	ORF K6.	3.36e+00

21	67.9	97.6	062812	INTERLEUKIN-8 (FRAGMEN	3.36e+00
22	67.9	132.10	023536	RESISTANCE GENE HOMOLO	3.36e+00
23	67.9	1361.10	004264	DOWNY MILDEN RESISTANC	3.36e+00
24	66.7	522.5	061090	SERINE RICH PROTEIN HO	5.15e+00
25	65.5	109.4	043927	CXC CHEMOKINE PRECURSO	7.84e+00
26	65.5	145.2	P74671	HYPOHETICAL 16.6 KD P	7.84e+00
27	65.5	307.10	065737	BETA-GALACTOSIDASE (EC	7.84e+00
28	65.5	730.10	065736	BETA-GALACTOSIDASE (EC	7.84e+00
29	64.3	172.2	051136	H11054 HOMOLOG (FRAGME	1.19e+01
30	64.3	203.14	067634	ECO Q PROTEIN (FRAGMEN	1.19e+01
31	64.3	203.14	068409	OE UL154.	1.19e+01
32	64.3	475.4	060646	HYPOHETICAL 53.8 KD P	1.19e+01
33	64.3	949.5	P90956	T01D3.3.	1.19e+01
34	64.3	1825.5	061210	H19M22.1 PROTEIN (FRAG	1.19e+01
35	64.3	2276.4	075050	KIAA0462 PROTEIN (FRAG	1.19e+01
36	63.1	93.4	000626	MACROPHAGE-DERIVED CHE	1.79e+01
37	63.1	100.14	040501	ENVELOPE GLYCOPROTEIN	1.79e+01
38	63.1	282.2	P96965	2-HYDROXY-6-OXO-7-METH	1.79e+01
39	63.1	982.5	093290	HYPOHETICAL PROTEIN C	1.79e+01
40	63.1	1422.10	023533	RESISTANCE GENE HOMOLO	1.79e+01
41	61.9	108.11	070460	EBI-1 LIGAND CHEMOKINE	2.69e+01
42	61.9	108.2	050686	INSERTION ELEMENT IS61	2.69e+01
43	61.9	117.10	042317	BETA GALACTOSIDASE (FR	2.69e+01
44	61.9	363.7	P95394	RNA CLASS 1 PROTEIN MO	2.69e+01
45	61.9	629.5	P91819	RNA POLYMERASE II LARG	2.69e+01
46	61.9	770.5	060999	COLA.	2.69e+01
47	61.9	852.10	023243	BETA-GALACTOSIDASE.	2.69e+01
48	61.9	853.10	042150	PLEXIN 3.	2.69e+01
49	61.9	1872.11	P70208	MHC CLASS IA (FRAGMENT	4.02e+01
50	60.7	71.7	031525	ENVELOPE GLYCOPROTEIN	4.02e+01
51	60.7	94.14	076035	ENVELOPE GLYCOPROTEIN	4.02e+01
52	60.7	95.14	075362	ENVELOPE GLYCOPROTEIN	4.02e+01
53	60.7	188.5	045136	COSD2.8 PROTEIN.	4.02e+01
54	60.7	389.1	058409	389AA LONG HYPOHETICA	4.02e+01
55	60.7	497.14	078694	GLYCOPROTEIN 120 (FRAG	4.02e+01
56	60.7	497.14	079985	VIRAL ENVELOPE PROTEIN	4.02e+01
57	60.7	552.5	046178	RADIAL SPORHEAD.	4.02e+01
58	60.7	724.10	081100	BETA-GALACTOSIDASE (EC	4.02e+01
59	60.7	760.3	099126	CHITIN SYNTHETASE I.	4.02e+01
60	60.7	825.2	P73065	HYPOHETICAL 92.5 KD P	4.02e+01
61	60.7	836.9	048483	COMPLETE NUCLEOTIDE SE	4.02e+01
62	60.7	1038.10	023532	RESISTANCE GENE.	4.02e+01
63	60.7	2919.14	085431	RNA POLYMERASE.	4.02e+01
64	59.5	74.7	P79637	MHC CLASS I ALPHA-1 (F	5.96e+01
65	59.5	167.7	046748	MHC CLASS I HEAVY CHAI	5.96e+01
66	59.5	178.2	031562	YEIT PROTEIN.	5.96e+01
67	59.5	202.14	089996	ENVELOPE GLYCOPROTEIN	5.96e+01
68	59.5	248.10	081404	1-AMINOGLYCOPROTEIN-1-	5.96e+01
69	59.5	276.2	069194	2-HYDROXY-6-OXOHEPTA-2	5.96e+01
70	59.5	276.2	069263	2-HYDROXY-6-OXO-2,4-HE	5.96e+01
71	59.5	285.14	087013	POSSIBLE REPLICATION A	5.96e+01
72	59.5	332.1	028318	PRIVATE REPLICATE-LYASE	5.96e+01
73	59.5	465.10	082719	ACC SYNTHASE (EC 4.4.1	5.96e+01
74	59.5	467.3	006466	CHROMOSOME XVI COSMID	5.96e+01
75	59.5	483.5	023206	SMILARITY TO NUCLEOLU	5.96e+01
76	59.5	491.10	043610	1-AMINOGLYCOPROTEIN-1-	5.96e+01
77	59.5	497.10	042610	BETA-GALACTOSIDASE (EC	5.96e+01
78	59.5	723.10	082670	ENVELOPE GLYCOPROTEIN	5.96e+01
79	59.5	859.14	097013	ENVELOPE GLYCOPROTEIN	5.96e+01
80	58.3	97.14	074555	ENVELOPE GLYCOPROTEIN	8.80e+01
81	58.3	107.14	074662	ENVELOPE GLYCOPROTEIN	8.80e+01
82	58.3	167.7	046767	MHC CLASS I HEAVY CHAI	8.80e+01
83	58.3	206.10	023539	DNA CHROMOSOME 4, ESSA	8.80e+01
84	58.3	208.2	056669	MANNOSE-SENSITIVE HEMA	8.80e+01
85	58.3	282.2	051858	2-HYDROXY-6-OXO-7-METH	8.80e+01
86	58.3	285.7	031388	MHC CLASS I PROTEIN PR	8.80e+01
87	58.3	324.4	015630	TRANSCRIPTION FACTOR.	8.80e+01
88	58.3	369.2	086548	POTATIVE MEMBRANE PROT	8.80e+01
89	58.3	388.1	051797	ACAB PROTEIN.	8.80e+01
90	58.3	431.2	034211	REVERSE TRANSCRIPTION	8.80e+01
91	58.3	448.2	032385	SMILARITY TO TMV RESI	8.80e+01
92	58.3	477.10	023530	HYPOHETICAL 66.1 KD P	8.80e+01
93	58.3	573.2	023431		8.80e+01

94 49 58.3 582.5 023909 PUTATIVE RNA HELICASE
95 49 58.3 766.10 023538 RESISTANCE GENE HOMOLO
96 49 58.3 823.4 075076 MDC2 BETA.
97 49 58.3 859.4 075075 MDC2 ALPHA.
98 49 58.3 1032.11 062780 RNA HELICASE.
99 49 58.3 1076.5 026154 V-SEPA 3.
100 49 58.3 2467.10 023535 RESISTANCE GENE HOMOLO

ALIGNMENTS

RESULT 1
ID 035933 PRELIMINARY; PRT; 395 AA.
AC 035933:
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE FRACTALKINE.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCUROGNATHI; MURIDAE; MORINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-BALB/C; TISSUE-BRAIN;
RA ROSSI D., HARDIMAN G., COPELAND N., GILBERT D.J., JENKINS N.,
RA ZLOTNIK A., BAZAN J.F.;
RL SUBMITTED (MAR-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; U92565; G2459677; -.
DR PFAM; PF00048; 118; 1.
SQ SEQUENCE 395 AA; 42040 MW; 3997A113 CRC32;

Query Match 95.2%; Score 80; DB 11; Length 395;
Best Local Similarity 90.0%; Pred. No. 6.64e-05;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 74 CADPREKXWQ 83
1 CADPRKXWQ 10

RESULT 2
ID 035188 PRELIMINARY; PRT; 395 AA.
AC 035188:
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE NEUROACTIN.
GN SCYD1.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCUROGNATHI; MURIDAE; MORINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE; 97320499.
RA PAN Y., CLARE L., HONG Z., DOLICH S., DEEDS J., GONZALO J., VATH T.,
RA GOSSELIN M., MA J., DUSSAULT B., WOOLF B., ALPERIN A., CULPEPPER J.,
RA GUTIERREZ-RAMOS J.C., GEARING D.;
RT "Neurotactin," a membrane-anchored chemokine upregulated in brain
inflammation."
RL NATURE 387:611-617(1997).
DR EMBL; AF010586; G2317698; -.
DR MGD; MGI:1097153; SCYD1.
DR PFAM; PF00048; 118; 1.
SQ SEQUENCE 395 AA; 42098 MW; E3CD0612 CRC32;

Query Match 95.2%; Score 80; DB 11; Length 395;
Best Local Similarity 90.0%; Pred. No. 6.64e-05;
Matches 9; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 74 CADPREKXWQ 83
1 CADPRKXWQ 10

RESULT 3
ID 000175 PRELIMINARY; PRT; 119 AA.
AC 000175:
DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE MPF-2.

OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RA PATEL V.P., KREIDER B.L., LI Y., LI H., LEUNG K., SALCEDO T.,
RA NARDELLI B., PIPPALTA V., GENTZ S., THOTAKURA R., PARMELEE D.,
RA GENTZ R., GAROTTA G.;
RL J. EXP. MED. 0:0-0(0).
DR EMBL; U85768; G1916252; -.
DR PFAM; PF00048; 118; 1.
SQ SEQUENCE 119 AA; 13119 MW; CDF526F0 CRC32;

Query Match 86.9%; Score 73; DB 4; Length 119;
Best Local Similarity 80.0%; Pred. No. 2.14e-03;
Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 74 CADPREKXWQ 83
1 CADPRKXWQ 10

RESULT 4
ID 089093 PRELIMINARY; PRT; 97 AA.
AC 089093:
DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CC CHEMOKINE ST38 PRECURSOR.
GN LARC.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
OC RODENTIA; SCUROGNATHI; MURIDAE; MORINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RA UTANS-SCHNEITZ U., LOREZ H., KLINKERT W.E.F., DA SILVA J.,
RA LESSLAUER W.;
RT "A novel rat CC chemokine, identified by targeted differential
display, is upregulated in brain inflammation."
RL J. NEUROIMMUNOL. 0:0-0(1998).
RN [2]
RP SEQUENCE FROM N.A.
RA VILLARES R.;
RL SUBMITTED (JUL-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; AF053313; G3551819; -.
DR EMBL; AJ007862; E1312757; -.
KT SIGNAL.
FT SIGNAL. 1 27 POTENTIAL.
FT CHAIN 28 97 CC CHEMOKINE ST38.
SQ SEQUENCE 97 AA; 10826 MW; 053405BD CRC32;

Query Match 84.5%; Score 71; DB 11; Length 97;
Best Local Similarity 88.9%; Pred. No. 5.65e-03;
Matches 8; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 75 CADPRXWQ 83
1 CADPRXWQ 9

RESULT 5
ID 000585 PRELIMINARY; PRT; 134 AA.
AC 000585:
DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)

DE 01-NOV-1998 (TREMELREL. 08, LAST ANNOTATION UPDATE)
 DE BETA CHEMOKINE EXODUS-2.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
 OC CATARRHINI; HOMINIDAE; HOMO.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA HROMAS R.A., GRAY P., KLEMSZ M., FIFE K., BROCKMEYER H.;
 RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 97400322.
 RA HEDRICK J.A., ZLOTNIK A.;
 RT "Identification and characterization of a novel beta chemokine
 containing six conserved cysteines."
 RL J. IMMUNOL. 159:1589-1593(1997).
 RN [3]
 RP SEQUENCE FROM N.A.
 RA HEDRICK J.A., ZLOTNIK A.;
 RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [4]
 RP SEQUENCE FROM N.A.
 RA NAGIRA M., IMAI T., HIESHIMA K., KUSUDA J., RIDANPAA M., TAKAGI S.,
 RA NISHIMURA M., KAKIZAKI M., NOMIYAMA H., YOSHIE O.;
 RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: U88320; G2196920; -;
 DR EMBL: AF001979; G2624923; -;
 DR EMBL: AB002409; D1022673; -;
 DR PFAM: PF00048; 118; 1.
 SQ SEQUENCE 134 AA; 14646 MW; FE86A239 CRC32;

Query Match 81.0%; Score 68; DB 4; Length 134;
 Best Local Similarity 80.0%; Pred. No. 2.36e-02;
 Matches 8; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
 DB 75 CADPKOKWVQ 84
 QY 1 CADPKOKWVQ 10

RESULT 6
 ID 099664 PRELIMINARY; PRT; 95 AA.
 AC 099664;
 DT 01-MAY-1997 (TREMELREL. 03, CREATED)
 DT 01-MAY-1997 (TREMELREL. 03, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMELREL. 08, LAST ANNOTATION UPDATE)
 DE CHEMOKINE EXODUS.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
 OC CATARRHINI; HOMINIDAE; HOMO.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-PANCREAS;
 RX MEDLINE: 97275143.
 RA HROMAS R., GRAY P.W., CHANTREY D., GODISKA R., KRATWOHL M., FIFE K.,
 RA BELT G.I., TAKEDA J., AKONICA S., GORDON M., COOPER S., BROCKMEYER H.E.,
 RA KLEMSZ M.J.;
 RT "Cloning and characterization of exodus, a novel beta-chemokine."
 RL BLOOD 89:3315-3322(1997).
 DR EMBL: U64197; G1778717; -;
 DR PROSITE: PS00472; SMALL_CYTOKINES.CC; 1.
 DR PFAM: PF00048; 118; 1.
 SQ SEQUENCE 95 AA; 10691 MW; 1526B4C0 CRC32;

Query Match 79.8%; Score 67; DB 4; Length 95;
 Best Local Similarity 77.8%; Pred. No. 3.77e-02;
 Matches 7; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

DB 73 CANPKOTWV 81
 QY 1 CADPKOKWV 9

RESULT 7
 ID P97884 PRELIMINARY; PRT; 96 AA.
 AC P97884;
 DT 01-MAY-1997 (TREMELREL. 03, CREATED)
 DT 01-MAY-1997 (TREMELREL. 03, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMELREL. 08, LAST ANNOTATION UPDATE)
 DE CC CHEMOKINE EXODUS.
 OS RATTUS NORVEGICUS (RAT).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; RODENTIA;
 OC SCIUROGNATHI; MURIDAE; MURINAE; RATUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-SPARGE-DARLEY;
 RA KELNER G.S., MACIEJEWski-LENOIR D., LEE E.D., MAKI R.A.;
 RL SUBMITTED (FEB-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [2]
 RP SEQUENCE FROM N.A.
 RC STRAIN-FISHER 344; TISSUE-BRAIN;
 RA UTANS-SCHNEITZ U., LOREZ H., KLINKERT W.E.F., DA SILVA J.,
 RA LESSLAUER W.;
 RT "A novel rat CC chemokine, identified by targeted differential
 display, is upregulated in brain inflammation."
 RL J. NEUROIMMUNOL. 0:0-0(1998).
 DR EMBL: U90447; G1899246; -;
 DR EMBL: AF053312; G351817; -;
 DR PFAM: PF00048; 118; 1.
 SQ SEQUENCE 96 AA; 10875 MW; 3FC09DD8 CRC32;

Query Match 79.8%; Score 67; DB 11; Length 96;
 Best Local Similarity 88.9%; Pred. No. 3.77e-02;
 Matches 8; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 DB 74 CADPKOIWV 82
 QY 1 CADPKOKWV 9

RESULT 8
 ID 057411 PRELIMINARY; PRT; 97 AA.
 AC 057411;
 DT 01-JUN-1998 (TREMELREL. 06, CREATED)
 DT 01-JUN-1998 (TREMELREL. 06, LAST SEQUENCE UPDATE)
 DT 01-JUN-1998 (TREMELREL. 06, LAST ANNOTATION UPDATE)
 DE LYMPHOTACTIN PRECURSOR.
 OS GALUS GALLUS (CHICKEN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ARCHOSAURIA; AVES;
 OC NEOGNATHAE; GALLIFORMES; PHASIANIDAE; PHASIANINAE; GALLUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-SPLEEN;
 RA ROSSI D.L., BAZAN J.F., ZLOTNIK A.;
 RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: AF006742; G2827882; -;
 KW SIGNAL.
 FT SIGNAL. 1 24
 FT CHAIN 25 97
 FT CHAIN 25 97
 SQ SEQUENCE 97 AA; 11131 MW; 3290101C CRC32;

Query Match 78.6%; Score 66; DB 13; Length 97;
 Best Local Similarity 70.0%; Pred. No. 6.01e-02;
 Matches 7; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

DB 73 CVHPEOKWVQ 82
 QY 1 CADPKOKWVQ 10

RESULT 9
 ID P78423 PRELIMINARY; PRT; 397 AA.
 AC P78423; 000672;
 DT 01-MAY-1997 (TREMELREL. 03, CREATED)
 DT 01-MAY-1997 (TREMELREL. 03, LAST SEQUENCE UPDATE)

01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE CX3C CHEMOKINE PRECURSOR.
 GN A-152E5.2.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
 OC CATARRHINI; HOMINIDAE; HOMO.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 9717711.
 RA BAZAN J.F., BACON K.B., HARDIMAN G., WANG W., SOO K., ROSSI D.,
 RA GREAVES D.R., ZLOTNIK A., SCHALL T.J.;
 RT "A new class of membrane-bound chemokine with a CX3C motif.";
 RL NATURE 385:640-644(1997).
 RN [2]
 RP SEQUENCE FROM N.A.
 RA ADAMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRMANN J., MASON T.M.,
 RA BRANDON R., KIM U.J., KERLAVAGE A.R., VENTER J.C.;
 RT "Homo sapiens chromosome 16 BAC clone C17987SK-A-152E5.";
 RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: U91835; G1898259; -
 DR EMBL: U84487; G1888523; -
 DR EMBL: AC004382; G3252821; -
 DR PFAM: PF00048; 118; 1.
 KW SIGNAL.
 FT CHAIN 25 397 POTENTIAL.
 FT SIGNAL 25 397 CX3C CHEMOKINE.
 SQ SEQUENCE 397 AA; 42202 MW; C8093D7D CRC32;

Query Match 78.6%; Score 66; DB 4; Length 397;
 Best Local Similarity 77.8%; Pred. No. 6.01e-02;
 Matches 7; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 74 CADPREQWV 82
 |||||: ||
 QY 1 CADPKQKRV 9

RESULT 10
 ID 014745 PRELIMINARY; PRT: 80 AA.
 AC 014745;
 DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
 DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE 1078 ALPHA BETA PRECURSOR (FRAGMENT).
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
 OC CATARRHINI; HOMINIDAE; HOMO.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-BRAIN.
 RA KISHIZUKA K., IGATA-YI R., NARUSE K., NAKASHIMA H., OHUCHI K.,
 RA KATSURAGI S., KIN Y., OHMOTO Y., NOMIYAMA H., ITO M., MIURA R.,
 RA MIYAKAWA T.;
 RL SUBMITTED (AUG-1995) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: D63785; G961440; -
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 DR PFAM: PF00048; 118; 1.
 KW SIGNAL.
 FT CHAIN 1 16 POTENTIAL.
 FT SIGNAL 17 16 LD78 ALPHA BETA.
 FT CHAIN 17 80
 FT NON_TER 80
 SQ SEQUENCE 80 AA; 8857 MW; 3F87F1C6 CRC32;

Query Match 76.2%; Score 64; DB 4; Length 80;
 Best Local Similarity 70.0%; Pred. No. 1.51e-01;
 Matches 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 67 CADPSEWVQ 76
 |||||: |||
 QY 1 CADPKQKRV 10

RESULT 11
 ID 088430 PRELIMINARY; PRT: 92 AA.
 AC 088430;
 DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE CC CHEMOKINE ABCD-1.
 OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
 OC RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; MUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-LIVER.
 RX MEDLINE: 9833531.
 RA SCHANIEL C., PARDALI E., SALLUSTO F., SPELETAS M., RUEDL C.,
 RA SHIMIZU T., SEIDL T., ANDERSSON J., MELCHERS F., ROLINK A.G.,
 RA SIDERAS P.;
 RT "Activated murine B lymphocytes and dendritic cells produce a novel
 CC chemokine which acts selectively on activated T cells.";
 RL J. EXP. MED. 188:451-463(1998).
 DR EMBL: AF052505; G3378116; -
 SQ SEQUENCE 92 AA; 10302 MW; BC7219A0 CRC32;

Query Match 75.0%; Score 63; DB 11; Length 92;
 Best Local Similarity 77.8%; Pred. No. 2.38e-01;
 Matches 7; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 76 CADPQWV 84
 |||||: ||
 QY 1 CADPKQKRV 9

RESULT 12
 ID 093238 PRELIMINARY; PRT: 101 AA.
 AC 093238;
 DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE CC CHEMOKINE-1.
 OS CYPRINUS CARPIO (COMMON CARP).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ACTINOPTERYGII; NEOPTERYGII;
 OC TELEOSTEI; EUTELEOSTEI; OSTARIOPHYSI; CYPRINIFORMES; CYPRINOIDEA;
 OC CYPRINIDAE; CYPRININAE; CYPRINUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA FUJII K., NAKAO M., SHIN D., YANO T.;
 RT "cDNA cloning of a carp CC chemokine homologous to mammalian
 RT eotaxins.";
 RL SUBMITTED (JAN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: AB010469; D1032417; -
 SQ SEQUENCE 101 AA; 11266 MW; 9CFBD540 CRC32;

Query Match 73.8%; Score 62; DB 13; Length 101;
 Best Local Similarity 66.7%; Pred. No. 3.74e-01;
 Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 74 CSDPKLRV 82
 |||||: ||
 QY 1 CADPKQKRV 9

RESULT 13
 ID 043646 PRELIMINARY; PRT: 91 AA.
 AC 043646;
 DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
 DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE RANTES PRECURSOR.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
 OC CATARRHINI; HOMINIDAE; HOMO.
 RN [1]

Best Local Similarity 63.6%; Pred. No. 141e+00;
Matches 7; Conservative 3; Mismatches 0; Indels 1; Gaps 1;

Db 31 CTOPROKMWQ 41
1:1:1:1111
QY 1 CADPKQKMWQ 10

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RESULT 17
ID 009002 PRELIMINARY; PRT; 133 AA.
AC 009002;
DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE SMALL INDUCIBLE CYTOKINE A21 (TCA4).
GN SCYA21.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCURONGNATHI; MURIDAE; MURINAE; MUS.
RN
RP SEQUENCE FROM N.A.
RC TISSUE=THYMUS;
RA TANABE S., LU Z., LUO Y., QUACKENBUSH E.J., BERMAN M.A.,
KA COLLINS-RACIE L.A., MI S., REILLY C., LO D., JACOBS K.A., DORF M.E.;
RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN
RP SEQUENCE FROM N.A.
RX MEDLINE; 97400322.
RA HEDRICK J.A., ZLOTNIK A.;
RT "Identification and characterization of a novel beta chemokine
RT containing six conserved cysteines."
RL J. IMMUNOL. 159:1589-1593(1997).
RN
RP SEQUENCE FROM N.A.
RA HEDRICK J.A., ZLOTNIK A.;
RT SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; AF006637; G2209189; -;
DR EMBL; AF001980; G2624927; -;
DR MGD; MGI:1097677; SCYA21.
DR PFAM; PF00048; 118; 1.
SQ SEQUENCE 133 AA; 14558 MW; C0532523 CRC32;

Query Match 69.0%; Score 58; DB 11; Length 133;
Best Local Similarity 60.0%; Pred. No. 2.19e+00;
Matches 6; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 75 CANPEGWQ 84
1:1:1:111
QY 1 CADPKQKMWQ 10

RESULT 18
ID 009006 PRELIMINARY; PRT; 133 AA.
AC 009006;
DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE BETA CHEMOKINE EXODUS-2.
GN SCYA21.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCURONGNATHI; MURIDAE; MURINAE; MUS.
RN
RP SEQUENCE FROM N.A.
RC TISSUE-TOTAL FETUS;
RX MEDLINE; 97444139.
RA HROMAS R., KIM C.H., KLEMSZ M., KRATHWOHL M., FIFE K., COOPER S.,
RA SCHNITZLEIN-BICK C., BROXMEYER H.E.;
RT "Isolation and characterization of Exodus-2, a novel C-C chemokine
RT with a unique 37-amino acid carboxyl-terminal extension."
RL J. IMMUNOL. 159:2554-2558(1997).
RN
RP SEQUENCE FROM N.A.

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RC TISSUE-TOTAL FETUS;

RA HROMAS R.A.;

RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.

DR EMBL; U88322; G3169697; -;

DR MGD; MGI:1097677; SCYA21.

DR PFAM; PF00048; 118; 1.

SQ SEQUENCE 133 AA; 14600 MW; B34A5E22 CRC32;

Query Match 69.0%; Score 58; DB 11; Length 133;

Best Local Similarity 60.0%; Pred. No. 2.19e+00;

Matches 6; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 75 CANPEGWQ 84
1:1:1:111
QY 1 CADPKQKMWQ 10

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RESULT 19
ID 084834 PRELIMINARY; PRT; 1053 AA.
AC 084834;
DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE RIBONUCLEOSIDE REDUCTASE, LARGE CHAIN.
GN NRDA.
OS CHLAMYDIA TRACHOMATIS.
OC BACTERIA; CHLAMYDIALES; CHLAMYDIACEAE; CHLAMYDIA.
RN
RP SEQUENCE FROM N.A.
RC STEPHENS R.S., KALMAN S., LAMMEL C.J., FAN J., MARATHE R., ARAYIND L.,
RA MITCHELL W.P., OLINGER L., TATUSOV R.L., ZHAO Q., KOONIN E.V.,
RA DAVIS R.W.;
RT "Genome Sequence of an Obligate Intracellular Pathogen of Humans:
RT Chlamydia trachomatis."
RL SCIENCE 0:0-0(1998).
RN
RP SEQUENCE FROM N.A.
RC STEPHENS R.S., KALMAN S., LAMMEL C.J., FAN J., MARATHE R., ARAYIND L.,
RA MITCHELL W.P., OLINGER L., TATUSOV R.L., ZHAO Q., KOONIN E.V.,
RA DAVIS R.W.;
RT SUBMITTED (MAY-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; AB001355; G3329297; -;
SQ SEQUENCE 1053 AA; 120168 MW; 781C1449 CRC32;

Query Match 69.0%; Score 58; DB 2; Length 1053;
Best Local Similarity 50.0%; Pred. No. 2.19e+00;
Matches 5; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 954 CASRRQKWD 963
1:1:1:111:1
QY 1 CADPKQKMWQ 10

RESULT 20
ID 098158 PRELIMINARY; PRT; 95 AA.
AC 098158; 012569;
DT 01-FEB-1997 (TREMBLREL. 02, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE ORF K6.
OS KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS.
OC VIRUSES; DSDNA VIRUSES, NO RNA STAGE; HERPESVIRIDAE;
OC GAMMAHERPESVIRINAE; RHADINOVIRUS.
RN
RP SEQUENCE FROM N.A.
RC MEDLINE; 97094384.
RA MOORE P.S., BASHOFF C., WEISS R.A., CHANG Y.;
RT "Molecular mimicry of human cytokine and cytokine response pathway
RT genes by KSHV."
RL SCIENCE 274:1739-1744(1996).
RN
RP SEQUENCE FROM N.A.

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RESULT 24
ID 061090 PRELIMINARY: PRT: 522 AA.
AC 061090:
DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
DE SERINE RICH PROTEIN HOMOLOG (FRAGMENT).
OS PLASMODIUM VIVAX.
OC PLASMODIUM VIVAX.
RN EUTARYOTA; ALVEOLATA; APICOMPLEXA; HAEMOSPORIDA; PLASMODIUM.
RP SEQUENCE FROM N.A.
RC STRAIN-SALVADOR I.
RA ROSENTHAL P.J.
RL SUBMITTED (MAR-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; AF052747; G2970697; -.
FT NON_TER 1
SQ SEQUENCE 522 AA; 58070 MW; B1E4CEB2 CRC32;

Query Match
Best Local Similarity 44.4%; Score 56; DB 5; Length 522;
Matches 4; Conservative 4; Mismatches 1; Indels 0; Gaps 0;

Db 158 CPAPKRWI 166
OY 1 CADPKRWV 9

RESULT 25
ID 043927 PRELIMINARY: PRT: 109 AA.
AC 043927:
DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
DE CXC CHEMOKINE PRECURSOR.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE; 9813629.
RA LEGIER D.F., LOETSCHER M., STUBER ROOS R., CLARK-LEWIS I.,
RA BAGGIOLINI M., MOSER B.;
RT "B cell-attracting chemokine 1, a human CXC chemokine expressed in
RT lymphoid tissues, selectively attracts B lymphocytes via BLR1/CXCR5.";
RL J. Exp. Med. 187:653-660(1998).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE; 98146056.
RA GUNN M.D., NGO V.N., ANSEL K.M., EKLAND E.H., CYSTER J.G.,
RA WILLIAMS I.T.;
RT "A B-cell-homing chemokine made in lymphoid follicles activates
RT Burkitt's lymphoma receptor-1.";
RL NATURE 391:799-803(1998).
RN [3]
RP SEQUENCE FROM N.A.
RA NAROLITANO M., SPINETTI G., GAETANO C., CAPOGROSSI C.M.;
RL SUBMITTED (OCT-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; AJ002211; E1249325; -.
DR EMBL; AF044197; G2911376; -.
DR EMBL; AF029894; G3169814; -.
KW SIGNAL.
FT CHAIN 1
FT SIGNAL 22
FT CHAIN 23
FT SIGNAL 109
SQ SEQUENCE 109 AA; 12664 MW; BE5A46BC CRC32;

Query Match
Best Local Similarity 50.0%; Score 55; DB 4; Length 109;
Matches 5; Conservative 1; Mismatches 4; Indels 0; Gaps 0;

Db 76 CVDPOAEMIQ 85
OY 1 CADPKRWV 10
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RESULT 26
ID P74671 PRELIMINARY: PRT: 145 AA.
AC P74671:
DT 01-FEB-1997 (TREMBLREL. 02, CREATED)
DT 01-FEB-1997 (TREMBLREL. 02, LAST SEQUENCE UPDATE)
DE HYPOTHETICAL 16.6 KD PROTEIN.
OS SYNECHOCYSTIS SP. (STRAIN PCC 6803).
OC BACTERIA; CYANOBACTERIA; CHROCOCCALES; SYNECHOCYSTIS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-PCC6803;
RA TABATA S.;
RL SUBMITTED (JUN-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE; 97061201.
RA KANEKO T., SATO S., KOTANI H., TANAKA A., ASAMIZU E., NAKAMURA Y.,
RA MIYAJIMA N., HIROSAMA M., SUGIURA M., SASAMOTO S., KIMURA T.,
RA HOSOUCHI T., MATSUNO A., MURAKI A., NAKAZAKI N., NARUO K., OKUMURA S.,
RA SHIMPO S., TAKEUCHI C., WADA T., WATANABE A., YAMADA M., YASUDA M.,
RA TABATA S.;
RT "Sequence analysis of the genome of the unicellular cyanobacterium
RT Synechocystis sp. strain PCC6803. II. Sequence determination of the
RT entire genome and assignment of potential protein-coding regions.";
RL DNA RES. 3:109-136(1996).
DR EMBL; D90917; D1019522; -.
KW HYPOTHETICAL PROTEIN.
SQ SEQUENCE 145 AA; 16561 MW; 3370B865 CRC32;
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Query Match
Best Local Similarity 71.4%; Score 55; DB 2; Length 145;
Matches 5; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 60 PROKRWQ 66
OY 4 PROKRWQ 10
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RESULT 27
ID 065737 PRELIMINARY: PRT: 307 AA.
AC 065737:
DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
DE 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
DE BETA-GALACTOSIDASE (EC 3.2.1.23) (LACTASE) (FRAGMENT).
OS CICCERARIETIDUM (CHICKPEA) (GARBANZO).
OC EUKARYOTA; VIRIDIPHYTES; CHAROPHYTA; EMBRYOPHYTA GROUP; EMBRYOPHYTA;
OC TRACHEOPHYTA; EUPHYLOPHYTES; SPERMATOPHYTA; MAGNOLIOPHYTA;
OC EUDICOTYLEDONS; ROSIDAE; FABALES; FABACEAE; PAPILIONOIDEAE; CICCER.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-CV. CASTELLANA; TISSUE-CULTURED EPICOTYLS.
RA ESTEBAN R., DOPICO B., LABRADOR E.;
RL SUBMITTED (APR-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -I- CATALYTIC ACTIVITY: HYDROLYSIS OF TERMINAL, NON-REDUCING
CC BETA-D-GALACTOSE RESIDUES IN BETA-D-GALACTOSIDES.
DR EMBL; AJ005043; E1285876; -.
KW HYDROLASE; GLYCOSIDASE.
FT NON_TER 1
FT NON_TER 1
SQ SEQUENCE 307 AA; 33486 MW; B1EA5B7D CRC32;
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Query Match
Best Local Similarity 62.5%; Score 55; DB 10; Length 307;
Matches 5; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 266 CGQPKRW 273
OY 1 CADPKRW 8
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RESULT 28
ID 065736 PRELIMINARY: PRT: 730 AA.
AC 065736;
DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE BETA-GALACTOSIDASE (EC 3.2.1.23) (LACTASE).
OS CICCERARIETINUM (CHICKPEA) (GARBANZO).
OC EUKARYOTA; VIRIDIPHYTES; CHAROPHYTA/EMBRYOPHYTA GROUP; EMBRYOPHYTA;
OC TRACHEOPHYTA; EUPHYLOPHYTES; SPERMATOPHYTA; MAGNOLIOPHYTA;
OC EDICOCYLIDAE; ROSIDAE; FABALES; FABACEAE; PAPILIONOIDEAE; CICCER.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-CV. CASTELLANA; TISSUE-ETIOLATED EPICOTYLS;
RA ESTEBAN R., DOPICO B., LABRADOR E.;
RL SUBMITTED (SEP-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -1 CATALYTIC ACTIVITY: HYDROLYSIS OF TERMINAL, NON-REDUCING BETA-D-
CC GALACTOSE RESIDUES IN BETA-D-GALACTOSIDES.
CC -1 SIMILARITY: BELONGS TO FAMILY 35 OF GLYCOSYL HYDROLASES.
DR EMBL; AJ005042; E1321550; -.
DR PROSITE; PS01182; GLYCOSYL-HYDROL_F35; 1.
KW HYDROLASE; GLYCOSIDASE.
FT ACT SITE 187 187 PROTON DONOR (BY SIMILARITY).
SQ SEQUENCE 730 AA; 81300 MM; DIC226FF CRC32;

Query Match 65.5%; Score 55; DB 10; Length 730;
Best Local Similarity 62.5%; Pred. No. 7.84e+00;
Matches 5; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 689 CGOPKRW 696
OY 1 CADPKRW 8

RESULT 29
ID 051136 PRELIMINARY: PRT: 172 AA.
AC 051136;
DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE HI1054 HOMOLOG (FRAGMENT).
OS NEISSERIA MENINGITIDIS.
OC BACTERIA; PROTEOBACTERIA; BETA SUBDIVISION; NEISSERIACEAE; NEISSERIA.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-M1080;
RX MEDLINE; 96326323.
RA ERWIN A.L., GOTSCHLICH E.C.;
RT "Cloning of a Neisseria meningitidis gene for L-lactate dehydrogenase
RT (L-LDH): evidence for a second meningococcal L-LDH with different
RT regulation."
RL J. BACTERIOL. 178:4807-4813(1996).
DR EMBL; U58911; G1381738; -.
FT NON-TER 1 1
SQ SEQUENCE 172 AA; 19765 MM; 85C8B90D CRC32;

Query Match 64.3%; Score 54; DB 2; Length 172;
Best Local Similarity 100.0%; Pred. No. 1.19e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 3 PKOKW 8
OY 4 PKOKW 9

RESULT 30
ID 067634 PRELIMINARY: PRT: 203 AA.
AC 067634;
DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE ECO Q PROTEIN (FRAGMENT).

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OS GALLID HERPESVIRUS TYPE 1.
OC VIRUSES; DSDNA VIRUSES; NO RNA STAGE; HERPESVIRIDAE;
OC ALPHAHERPEVIRINAE; VARICELLOVIRUS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-GA;
RX MEDLINE; 96074534.
RA PENG Q., ZENG M., BHUIYAN Z.A., UBUKATA E., TANAKA A., NONOYAMA M.,
RA SHIRAZI Y.;
RT "Isolation and characterization of Marek's disease virus (MDV) cDNAs
RT mapping to the BamHI-12, BamHI-Q2, and BamHI-L fragments of the MDV
RT genome from lymphoblastoid cells transformed and persistently infected
RT with MDV."
RL VIROLOGY 213:590-599(1995).
DR EMBL; U34966; G1185444; -.
DR PFWM; PF00048; 118; 1.
FT NON-TER 1 1
SQ SEQUENCE 203 AA; 23132 MM; 887D04C3 CRC32;

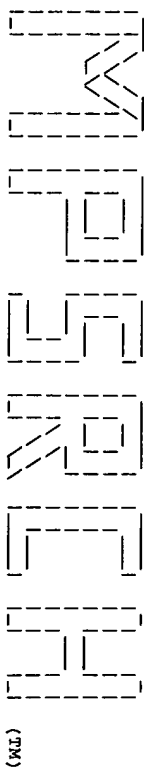
Query Match 64.3%; Score 54; DB 14; Length 203;
Best Local Similarity 60.0%; Pred. No. 1.19e+01;
Matches 6; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Db 146 CYDPEAPWQ 155
OY 1 CADPKRWQ 10

```

Search completed: Thu Apr 1 07:27:00 1999
Job time : 40 secs.

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(TM)

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MSEARCH protein - protein database search, using Smith-Waterman algorithm
Run on: Thu Apr 1 07:30:28 1999; Maspar time 2.63 seconds
36.905 Million cell updates/sec
Tabular output not generated.

Title: >US-08-927-939-8
Description: (1-6) from US08927939.pcp
Perfect Score: 44
Sequence: 1 EICADP 6

Scoring table:
PAM 150
Gap 15

Searched: 131922 seqs, 16180660 residues

Post-processing: Listing first 100 summaries

Database: a-geneseq32
1:part1 2:part2 3:part3 4:part4 5:part5 6:part6 7:part7
8:part8 9:part9 10:part10 11:part11 12:part12 13:part13
14:part14 15:part15 16:part16 17:part17 18:part18
19:part19 20:part20 21:part21 22:part22 23:part23
24:part24 25:part25 26:part26 27:part27 28:part28
29:part29

Statistics: Mean 13.493; Variance 41.871; scale 0.322

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description	Pred. No.
1	44	100.0	66 24	W13598	Monocyte Chemottract	8.87e+01
2	44	100.0	67 24	W13599	Monocyte Chemottract	8.87e+01
3	44	100.0	67 14	R73915	Human monocyte chemoa	8.87e+01
4	44	100.0	68 24	W17668	Stem cell mobilising	8.87e+01
5	44	100.0	68 24	W13597	Monocyte chemottract	8.87e+01
6	44	100.0	69 23	W20062	Human macrophage deri	8.87e+01
7	44	100.0	69 14	R87678	Human macrophage deri	8.87e+01
8	44	100.0	69 23	W20061	des(2-8) MCP-1.	8.87e+01
9	44	100.0	69 24	W13596	Human macrophage deri	8.87e+01
10	44	100.0	70 23	W20060	Monocyte chemottract	8.87e+01
11	44	100.0	71 27	W22675	Human macrophage deri	8.87e+01
12	44	100.0	75 27	W22673	Dro13+ chemokine beta	8.87e+01
13	44	100.0	76 14	R87677	Bac 3 chemokine betai	8.87e+01
14	44	100.0	76 15	R87678	(3-Ala) MCP-1.	8.87e+01
15	44	100.0	76 5	R28660	Monocyte chemotactic	8.87e+01
16	44	100.0	76 20	W09374	MCF.	8.87e+01
17	44	100.0	76 21	W1131	Monocyte chemotactic	8.87e+01
18	44	100.0	76 1	P90292	Mature human monocyte	8.87e+01
					Peptide from human gl	8.87e+01

19	44	100.0	76 10	R53398	Sense MCP-1.	8.87e+01
20	44	100.0	76 14	R87675	(28-asp) MCP-1.	8.87e+01
21	44	100.0	76 14	R87676	(24-Arg) MCP-1.	8.87e+01
22	44	100.0	77 27	W22672	Bac 2 chemokine betai	8.87e+01
23	44	100.0	77 15	R86859	Mature MCP-1.	8.87e+01
24	44	100.0	79 27	W22674	Dro11/2 chemokine bet	8.87e+01
25	44	100.0	82 27	W22671	Bac 1 chemokine betai	8.87e+01
26	44	100.0	82 24	W17665	Stem cell mobilising	8.87e+01
27	44	100.0	93 27	W40811	Macrophage-derived ch	8.87e+01
28	44	100.0	93 23	W07604	Cytokine beta-13 stim	8.87e+01
29	44	100.0	93 23	W20058	Macrophage derived ch	8.87e+01
30	44	100.0	98 28	W30191	Monocyte chemotactic	8.87e+01
31	44	100.0	98 17	W22670	Human chemokine betai	8.87e+01
32	44	100.0	98 17	R93087	Human chemokine beta	8.87e+01
33	44	100.0	99 13	R70800	Chemottractant prote	8.87e+01
34	44	100.0	99 5	R28663	MCF.	8.87e+01
35	44	100.0	99 13	R70801	Chemottractant prote	8.87e+01
36	44	100.0	99 2	P95387	Human monocyte chemo	8.87e+01
37	44	100.0	99 14	R73914	Human monocyte chemo	8.87e+01
38	44	100.0	109 2	R24353	Cytokine encoded by c	8.87e+01
39	44	100.0	700 23	W19992	Human CAMP used to id	8.87e+01
40	43	97.7	82 29	W44721	Amino acid sequence o	1.14e+02
41	43	97.7	97 24	W14990	Human eosinocyte CC t	1.14e+02
42	43	97.7	97 23	W10099	Human ectaxin.	1.14e+02
43	43	97.7	97 21	W00667	Pancreas expressed ch	1.14e+02
44	42	95.5	69 7	R38940	LD78 Phe28>Glu, Gln48	1.46e+02
45	42	95.5	72 13	R38926	LD78 Gln48>Glu.	1.46e+02
46	42	95.5	72 13	R70804	Chemottractant MCP-2	1.46e+02
47	42	95.5	109 29	W42072	Human MC precursor.	1.46e+02
48	42	95.5	109 26	W26655	Human beta chemokine	1.46e+02
49	41	93.2	60 24	W17662	Stem cell mobilising	1.88e+02
50	41	93.2	89 25	W23643	Human dendritic cell	1.88e+02
51	41	93.2	89 14	R76127	Macrophage inflamma	1.88e+02
52	40	93.2	89 21	W07204	Human cytokine beta-1	1.88e+02
53	40	90.9	99 2	R06398	Human MCF precursor.	2.40e+02
54	39	88.6	69 7	R38983	LD78 Asp64>Ser.	3.07e+02
55	39	88.6	69 7	R39106	LD78 Val39>Ala.	3.07e+02
56	39	88.6	69 7	R39109	LD78 Thr43>Ala.	3.07e+02
57	39	88.6	69 7	R39114	LD78 Ser63>Ala.	3.07e+02
58	39	88.6	69 7	R39115	LD78 Gln59>Ser.	3.07e+02
59	39	88.6	69 7	R38982	LD78 Lys60>Ser.	3.07e+02
60	39	88.6	69 7	R38930	LD78 Arg17>Ser.	3.07e+02
61	39	88.6	69 7	R39105	LD78 Gly38>Ala.	3.07e+02
62	39	88.6	69 7	R39130	LD78 Ser68>Glu.	3.07e+02
63	39	88.6	69 7	R39124	LD78 Val58>Ala.	3.07e+02
64	39	88.6	69 7	R39126	LD78 Lys60>Asp.	3.07e+02
65	39	88.6	69 7	R39127	LD78 Tyr61>Asp.	3.07e+02
66	39	88.6	69 7	R38869	LD78 Ser46>Ala.	3.07e+02
67	39	88.6	69 7	R38972	LD78 Ala4>Ser.	3.07e+02
68	39	88.6	69 7	R39133	LD78 Ser31>Glu.	3.07e+02
69	39	88.6	69 7	R39141	LD78 Arg45>Glu.	3.07e+02
70	39	88.6	69 7	R39112	LD78 Tyr27>Ala.	3.07e+02
71	39	88.6	69 7	R38967	LD78 Arg17>Glu, Gln18	3.07e+02
72	39	88.6	69 7	R38981	LD78 Gln56>Ser.	3.07e+02
73	39	88.6	69 7	R38934	LD78 Ile24>Thr.	3.07e+02
74	39	88.6	69 7	R39122	LD78 Ser54>Ala.	3.07e+02
75	39	88.6	69 7	R39123	LD78 Trp57>Ala.	3.07e+02
76	39	88.6	69 7	R39144	LD78 Ile24>Glu.	3.07e+02
77	39	88.6	69 7	R39146	LD78 Arg17>Glu.	3.07e+02
78	39	88.6	69 7	R39128	LD78 Phe12>Asp.	3.07e+02
79	39	88.6	69 7	R39129	LD78 Thr8>Glu.	3.07e+02
80	39	88.6	69 7	R38976	LD78 Asp5>Ser.	3.07e+02
81	39	88.6	69 7	R38978	LD78 Lys44>Ser.	3.07e+02
82	39	88.6	69 7	R38961	LD78 Asp5>Arg.	3.07e+02
83	39	88.6	69 7	R38928	LD78 Ala9>Ser.	3.07e+02
84	39	88.6	69 7	R39093	LD78 Leu42>Ala.	3.07e+02
85	39	88.6	69 7	R39088	LD78 Ser1>Ala.	3.07e+02
86	39	88.6	69 7	R39101	LD78 Ser68>Ala.	3.07e+02
87	39	88.6	69 7	R38980	LD78 Gln55>Ser.	3.07e+02
88	39	88.6	70 7	R38949	Ala-Ser1>Pro LD78.	3.07e+02
89	39	88.6	71 7	R38946	Ser-Ala LD78.	3.07e+02
90	39	88.6	72 7	R38947	Leu-Ser-Ala-Ser1>Pro	3.07e+02
91	39	88.6	72 7	R38962	LD78 Arg17>Glu, Gln,	3.07e+02

92 39 88.6 74 7 R38923 LD78. 3.07e+02
93 39 88.6 91 1 P91030 Human H400 polypeptid 3.07e+02
94 39 88.6 92 3 R14914 LD78alpha. 3.07e+02
95 39 88.6 92 1 R05902 PAT 464 gene product. 3.07e+02
96 39 88.6 92 1 R04220 Act-2 clone gene prod 3.07e+02
97 39 88.6 93 1 R1553 Human Stem Cell Inhib 3.07e+02
98 39 88.6 93 12 R62616 Stem cell inhibitor, 3.07e+02
99 39 88.6 93 12 R62617 Variant stem cell inh 3.07e+02
100 39 88.6 99 5 R26581 Sequence of p6 precur 3.07e+02

ALIGNMENTS

RESULT 1
ID W13598 standard; peptide: 66 AA.
AC W13598;
DE 07-NOV-1997 (first entry)
KW Monocyte chemoattractant protein analogue MCP-1 (10-76).
KW Truncated monocyte chemoattractant protein-1; inhibitor;
KW receptor binding; anti-inflammatory; basophil; lymphocyte; allergy;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
KW lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PA (LEMI/) LEWIS I.
PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Disclosure: Page 5: 27pp; English.
CC The present sequence represents an analogue, MCP-1 (10-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-9 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 66 AA;

Query Match 100.0%; Score 44; DB 24; Length 66;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 40 elcadv 45
| | | | |
Qy 1 EICADP 6

RESULT 2
ID W13599 standard; peptide: 67 AA.
AC W13599;
DE 07-NOV-1997 (first entry)
KW Monocyte chemoattractant protein analogue MCP-1 (11-76).
KW Truncated monocyte chemoattractant protein-1; inhibitor;
KW receptor binding; anti-inflammatory; basophil; lymphocyte; allergy;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
KW lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PA (LEMI/) LEWIS I.

PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Disclosure: Page 5: 27pp; English.
CC The present sequence represents an analogue, MCP-1 (11-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-10 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 67 AA;

Query Match 100.0%; Score 44; DB 24; Length 67;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 41 elcadv 46
| | | | |
Qy 1 EICADP 6

RESULT 3
ID R73915 standard; protein: 67 AA.
AC R73915;
DE 05-DEC-1995 (first entry)
KW Human monocyte chemoattractant factor hMCP-3.
KW Human monocyte chemoattractant factor: hMCP-3; chemokine; vaccine;
KW meningitis related homologous antigenic sequence; MRRAS; RV-1;
KW immunosassay; diagnosis; treatment; prophylactic; bacterial;
KW viral.
OS Homo sapiens.
PN W09509232-A.
PD 06-APR-1995.
PF 28-SEP-1994; CA0516.
PR 28-SEP-1993; US-127499.
PA (SHAR/) SHARMA L R.
PA (VALS/) VAN ALSTYNE D.
PI Sharma LR, Van Alstyne D;
DR WPI: 95-147431/19.
PT New peptide(s) and corresp. antibodies for the treatment of
PT meningitis - the peptide(s) corresp. to homologous antigenic
PT sites on bacterial and viral agents and on chemokine(s), used for
PT detecting and preventing meningitis
PS Claim 47: Fig 8/10: 98pp; English.
CC R73915 is the chemokine Human monocyte chemoattractant factor hMCP-3.
CC It contains the meningitis related antigenic sequences (MRRAS) claimed
CC in R73896 and R73908, which are recognised by a monoclonal antibody
CC from the hybridoma Rubella virus (RV)-1. The claimed MRRAS peptides
CC may be used in immunoassays to diagnose the presence of bacterial
CC and/or viral meningitis agents in a sample, or in prophylactic and
CC therapeutic meningitis treatments. The peptides may also be used as
CC vaccines against meningitis.
CC NB: Identified by matching corresponding MRRAS peptides.
SQ Sequence 67 AA;

Query Match 100.0%; Score 44; DB 14; Length 67;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 41 elcadv 46
| | | | |
Qy 1 EICADP 6

RESULT 4
ID W17668 standard; peptide; 68 AA.
AC W17668;
DT 16-DEC-1997 (first entry)
DE Stem cell mobilising chemokine CXbeta-13.
KW Hematopoietic cell; parasitic infection; colony stimulating factor;
KW hematopoietic cell; immune response; bacterial infection; transplant;
KW wound healing; bone marrow; immunosuppression; regeneration;
KW neoplastic disease; viral disease; gene therapy; cytotoxic drug.
OS Synthetic.
PN MO9715594-A1.
PD 01-MAY-1997.
PF 23-OCT-1996; U16959.
PR 24-OCT-1995; US-006051.
PA (SMK) SMITHKLINE BEECHAM CORP.
PI Kreider BL, Li H, Pelus L, White JR;
DR WPI: 97-258956/23.
PT Ten new chemokine(s) able to mobilise stem cells - used where
PT increased levels of haematopoietic cells are required, e.g. to
PT increase resistance to infection
PS Claim 10; Page 13; 24pp; English.
CC The present sequence represents a chemokine, CXbeta-13, which is capable
CC of mobilising stem cells. The chemokine can be used therapeutically to
CC improve stem cell mobilisation, optionally together with a colony
CC stimulating factor or other haematopoietic agent. It can be used
CC to increase the immune response to chronic infection (particularly
CC bacterial or parasitic), to promote wound healing, in (transplant)
CC patients with reduced bone marrow function as a result of
CC immunosuppressive treatment or disease, and to provide more rapid
CC regeneration of bone marrow after treatment for neoplastic or viral
CC diseases. The induced stem cells may be harvested for subsequent return
CC to the patient, optionally after they have been genetically manipulated
CC to deliver a selected gene product (gene therapy). The cells may be
CC co-administered with a cytotoxic drug.
SQ Sequence 68 AA;
Query Match 100.0%; Score 44; DB 24; Length 68;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Db 49 elcdp 54
| | | | |
QY 1 EICADP 6

RESULT 5
ID W13597 standard; peptide; 68 AA.
AC W13597;
DT 07-NOV-1997 (first entry)
DE Monocyte chemoattractant protein analogue MCP-1 (9-76).
KW Truncated monocyte chemoattractant protein-1; inhibitor;
KW receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
KW lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PA (LEWIS) LEWIS I.
PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Claim 7; Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (9-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-8 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration

CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 68 AA;
Query Match 100.0%; Score 44; DB 24; Length 68;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Db 42 elcdp 47
| | | | |
QY 1 EICADP 6

RESULT 6
ID W20062 standard; Protein; 69 AA.
AC W20062;
DT 11-SEP-1997 (first entry)
DE Human macrophage derived chemokine analogue.
KW MDC; macrophage derived chemokine; C-C; Cys-Cys; Crohn's disease;
KW rheumatoid arthritis; chemotaxis; fibroblast proliferation;
KW wound healing; angiogenesis; inflammation.
OS Synthetic.
PN MO9640923-A1.
PD 19-DEC-1996.
PF 07-JUN-1996; U10114.
PR 07-JUN-1995; US-479620.
PR 16-NOV-1995; US-558658.
PA (ICOS-) ICOS CORP.
PI Godiska R, Gray PW;
DR WPI: 97-052324/05.
PT Macrophage derived chemokine (MDC) and analogues - used in the
PT treatment of inflammatory diseases, MDC antibodies used to treat
PT Crohn's disease, rheumatoid arthritis, etc.
PS Claim 25; Page 84; 106pp; English.
CC A new macrophage derived chemokine, MDC, a member of the C-C
CC (Cys-Cys) subfamily of cytokines has been isolated. MDC and it's
CC analogues may be used in the treatment of inflammatory diseases
CC especially diseases characterised by monocyte chemotaxis towards a
CC site of inflammation. MDC and it's analogues also induce fibroblast
CC proliferation having a positive effect in wound healing and
CC angiogenesis. They may prove to be clinically important in the
CC treatment of tumours, by directly or indirectly inhibiting tumour
CC formation. Antibodies directed against MDC and its analogues may be
CC used in the treatment of Crohn's disease, rheumatoid arthritis and
CC atherosclerosis. Probes and/or primers for the identification of MDC
CC encoding sequences can be derived from MDC encoding sequences.
SQ Sequence 69 AA;
Query Match 100.0%; Score 44; DB 23; Length 69;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Db 50 elcdp 55
| | | | |
QY 1 EICADP 6

RESULT 7
ID R87678 standard; protein; 69 AA.
AC R87678;
DT 21-FEB-1996 (first entry)
DE des(2-8) MCP-1.
KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
KW angioplasty.
OS Homo sapiens.
PH Key
FT modified_site 2..3 location/Qualifiers
/note="amino acids 2-8 of the native protein have

FT been deleted between these residues"
FT disulfide_bond 4...29
FT disulfide_bond 5...45
PN W09513295-A1.
PD 18-MAY-1995.
PF 07-NOV-1994; U12874.
PR 12-NOV-1993; US-152301.
PA (DAND) DANA-FARBER CANCER INST INC.
PI Rollins B, Zhang YJ;
PT WPI: 95-215051/28.
PS Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are capable of inhibiting the monocyte chemo-attractant activity of endogenous MCP-1 and can be used to treat restenosis
PS Claim 4; Page 11; 22pp; English.
CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such that they inhibit the monocyte chemoattractant activity of endogenous MCP-1, provided that the derivative has not been modified by the substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg by Phe; (3) substitution of 3 Asp by Ala; and/or (4) deletion of amino acids 2-8. The present sequence is a specifically claimed human MCP-1 derivative based on the parent protein disclosed in Rollins, Molecular and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC The peptides can be used to prevent restenosis, e.g. in patients undergoing coronary artery angioplasty.
SQ Sequence 69 AA;

Query Match 100.0%; Score 44; DB 14; Length 69;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 43 elcadv 48
|||||
QY 1 EICADP 6

RESULT 8
ID W20061 standard; Protein; 69 AA.
AC W20061;
DT 11-SEP-1997 (first entry)
DE Human macrophage derived chemokine analogue.
KW MDC; macrophage derived chemokine; C-C; Cys-Cys; Crohn's disease; rheumatoid arthritis; chemotaxis; fibroblast proliferation;
KM wound healing; angiogenesis; inflammation.
OS Synthetic.
PN W09640923-A1.
PD 19-DEC-1996.
PF 07-JUN-1996; U10114.
PR 07-JUN-1995; US-479620.
PR 16-NOV-1995; US-558658.
PA (ICOS-) ICOS CORP.
PI Godiska R, Gray PW;
PT WPI: 97-052324/05.
PS Macrophage derived chemokine (MDC) and analogues - used in the treatment of inflammatory diseases. MDC antibodies used to treat Crohn's disease, rheumatoid arthritis, etc.
PT Claim 25; Page 84; 106pp; English.
CC A new macrophage derived chemokine, MDC, a member of the C-C (Cys-Cys) subfamily of cytokines has been isolated. MDC and its analogues may be used in the treatment of inflammatory diseases especially diseases characterised by monocyte chemotaxis towards a site of inflammation. MDC and its analogues also induce fibroblast proliferation having a positive effect in wound healing and angiogenesis. They may prove to be clinically important in the treatment of tumours, by directly or indirectly inhibiting tumour formation. Antibodies directed against MDC and its analogues may be used in the treatment of Crohn's disease, rheumatoid arthritis and atherosclerosis. Probes and/or primers for the identification of MDC encoding sequences can be derived from MDC encoding sequences.
SQ Sequence 69 AA;

Query Match 100.0%; Score 44; DB 23; Length 69;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;

Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Db 50 elcadv 55
|||||
QY 1 EICADP 6

RESULT 9
ID W13596 standard; peptide; 69 AA.
AC W13596;
DT 07-NOV-1997 (first entry)
DE Monocyte chemoattractant protein analogue MCP-1 (8-76).
KW Truncated monocyte chemoattractant protein-1; inhibitor; receptor binding; anti-inflammatory; basophil; lymphocyte; allergy; chronic inflammatory disease; arthritis; arteriosclerosis;
KM Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PA (LEWIS/) LEWIS I;
PI Gong J, Lewis I;
PT WPI: 97-165844/16.
PS N-terminally truncated monocyte chemo-attractant protein-1 (MCP-1) - lacks MCP-1 activity and inhibits receptor binding, useful as anti-inflammatory agent
PS Claim 5; Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (8-76), of monocyte chemoattractant protein-1 (MCP-1). The analogue, which lacks the N-terminal amino acids 1-7 of MCP-1, acts as an antagonist of MCP-1 as it lacks MCP-1 biological activity and inhibits binding to a MCP-1 receptor. The analogue is useful as an anti-inflammatory agent to block the effects of MCP-1 which is an inflammatory mediator causing migration of monocytes and other cells e.g. basophils and lymphocytes into inflammation sites. MCP-1 has been implicated in allergic and chronic inflammatory diseases e.g. arthritis, arteriosclerosis and several lung diseases. The analogue competes more effectively with MCP-1 for binding to MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably with 75:1 for prior art mutant 7ND.
SQ Sequence 69 AA;

Query Match 100.0%; Score 44; DB 24; Length 69;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 43 elcadv 48
|||||
QY 1 EICADP 6

RESULT 10
ID W20060 standard; Protein; 70 AA.
AC W20060;
DT 11-SEP-1997 (first entry)
DE Human macrophage derived chemokine analogue.
KW MDC; macrophage derived chemokine; C-C; Cys-Cys; Crohn's disease; rheumatoid arthritis; chemotaxis; fibroblast proliferation;
KM wound healing; angiogenesis; inflammation.
OS Synthetic.
PN W09640923-A1.
PD 19-DEC-1996.
PF 07-JUN-1996; U10114.
PR 07-JUN-1995; US-479620.
PR 16-NOV-1995; US-558658.
PA (ICOS-) ICOS CORP.
PI Godiska R, Gray PW;
PT WPI: 97-052324/05.
PS Macrophage derived chemokine (MDC) and analogues - used in the treatment of inflammatory diseases. MDC antibodies used to treat Crohn's disease, rheumatoid arthritis, etc.
PT Claim 25; Page 83; 106pp; English.

CC A new macrophage derived chemokine, MDC, a member of the C-C
CC (Cys-Cys) subfamily of cytokines has been isolated. MDC and it's
CC analogues may be used in the treatment of inflammatory disorders
CC especially diseases characterised by monocyte chemotaxis towards a
CC site of inflammation. MDC and it's analogues also induce fibroblast
CC proliferation having a positive effect in wound healing and
CC angiogenesis. They may prove to be clinically important in the
CC treatment of tumours, by directly or indirectly inhibiting tumour
CC formation. Antibodies directed against MDC and its analogues may be
CC used in the treatment of Crohn's disease, rheumatoid arthritis and
CC atherosclerosis. Probes and/or primers for the identification of MDC
CC encoding sequences can be derived from MDC encoding sequences.
SQ Sequence 70 AA;

Query Match 100.0%; Score 44; DB 23; Length 70;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

DB 51 eicadp 56
|||||
QY 1 EICADP 6

RESULT 11
ID W22675 standard; Protein: 71 AA.
AC W22675;
DT 19-MAR-1998 (first entry)
DE Drol3+ chemokine beta10 or monocyte chemotactic protein 4 variant.
KW Human; chemokine beta10; CK beta10; treatment; antagonist;
KW solid tumour; infection; autoimmune disease; asthma; antibody;
KW fibrotic disease; psoriasis; neurodegenerative disease;
KW wound healing; haematopoiesis regulation; gene therapy;
KW chromosome identification; monocyte chemotactic protein 4;
KW leukaemia; MCP-4; Drol3+ variant.
OS Homo sapiens.
PN MO9731098-A1.
PD 28-AUG-1997.
PF 23-FEB-1996; WO-002598.
PR (HUMA-) HUMAN GENOME SCI INC.
PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
PI Parmelee D, White J;
DR WPI: 97-435153/40.
PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
PT protein 4 - useful to treat tumours, autoimmune disease, infection,
PT asthma and fibrosis
PS Example 11; Fig 5; 83pp; English.
CC The present sequence is human chemokine beta10 (CK beta10) or
CC monocyte chemotactic protein 4 (MCP-4) Drol3+ variant, which can
CC be used to treat patients deficient in CK beta10, while a CK beta10
CC antagonist can be used to reduce excessive levels of CK beta10. CK
CC beta10 can be used to treat leukaemia, solid tumours, chronic or
CC opportunistic infections, autoimmune diseases, asthma, fibrotic
CC diseases, psoriasis and neurodegenerative diseases. It also
CC promotes wound healing, regulates haematopoiesis and generates
CC antibodies. Labelled CK beta10 can be used to identify its cognate
CC receptor, while cells expressing the receptor can be used to screen
CC compounds for (ant)agonist activity. The antagonist can be used to
CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
CC infectious diseases, allergies, prostaglandin dependent fever and
CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
CC syndrome, lung inflammation and atherosclerosis. CK beta10 cDNA can
CC be used to isolate genes encoding similar peptides, in gene therapy
CC and for chromosome identification.
SQ Sequence 71 AA;

Query Match 100.0%; Score 44; DB 27; Length 71;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

DB 45 eicadp 50
|||||
QY 1 EICADP 6

RESULT 12
ID W22673 standard; Protein: 75 AA.
AC W22673;
DT 19-MAR-1998 (first entry)

DE Bac 3 chemokine beta10 or monocyte chemotactic protein 4 variant.
KW Human; chemokine beta10; CK beta10; treatment; antagonist;
KW solid tumour; infection; autoimmune disease; asthma; antibody;
KW fibrotic disease; psoriasis; neurodegenerative disease;
KW wound healing; haematopoiesis regulation; gene therapy;
KW chromosome identification; monocyte chemotactic protein 4;
KW leukaemia; MCP-4; Bac 3 variant.
OS Homo sapiens.
PN MO9731098-A1.
PD 28-AUG-1997.
PF 23-FEB-1996; WO-002598.
PR (HUMA-) HUMAN GENOME SCI INC.
PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
PI Parmelee D, White J;
DR WPI: 97-435153/40.

PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
PT protein 4 - useful to treat tumours, autoimmune disease, infection,
PT asthma and fibrosis
PS Example 11; Fig 5; 83pp; English.
CC The present sequence is human chemokine beta10 (CK beta10) or
CC monocyte chemotactic protein 4 (MCP-4) Bac 3 variant, which can be
CC used to treat patients deficient in CK beta10, while a CK beta10
CC antagonist can be used to reduce excessive levels of CK beta10. CK
CC beta10 can be used to treat leukaemia, solid tumours, chronic or
CC opportunistic infections, autoimmune diseases, asthma, fibrotic
CC diseases, psoriasis and neurodegenerative diseases. It also
CC promotes wound healing, regulates haematopoiesis and generates
CC antibodies. Labelled CK beta10 can be used to identify its cognate
CC receptor, while cells expressing the receptor can be used to screen
CC compounds for (ant)agonist activity. The antagonist can be used to
CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
CC infectious diseases, allergies, prostaglandin dependent fever and
CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
CC syndrome, lung inflammation and atherosclerosis. CK beta10 cDNA can
CC be used to isolate genes encoding similar peptides, in gene therapy
CC and for chromosome identification.
SQ Sequence 75 AA;

Query Match 100.0%; Score 44; DB 27; Length 75;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

DB 49 eicadp 54
|||||
QY 1 EICADP 6

RESULT 13
ID R87677 standard; Protein: 76 AA.
AC R87677;
DT 21-FEB-1996 (first entry)

DE (3-Ala) MCP-1.
KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
KW angioplasty.
OS Homo sapiens.
PI Key

FT modified_site 3 location/Qualifiers

FT disulfide_bond 11..36 /note- "Asp in the native sequence is replaced by Ala"

FT disulfide_bond 12..52

PN MO9513395-A1.

PD 18-MAY-1995.

PF 07-NOV-1994; U12874.

PR 12-NOV-1993; US-152301.

PA (DAND) DANNA FARBER CANCER INST INC.
PI Rollins B, Zhang YJ;

AC W1131;
DE 10-JUN-1997 (first entry)
DE Mature human monocyte chemoattractant protein-1 (MCP-1).
KW MCP-1; mature chemoattractant protein-1; cytokine; interleukin-8;
KW IL-8; neutrophil activating peptide; labelling; imaging; targeting;
KW radionuclide; infection; inflammation; neoplasm; atheromatous lesion;
KW restenosis.
OS Homo sapiens.
FH Key Location/Qualifiers
FT misc_difference 1 /note="X= any amino acid"
FT US5605671-A.
PN 25-FEB-1997.
PR 05-OCT-1992: 956862.
PR 05-OCT-1992: US-956863.
PR 05-OCT-1992: US-956862.
PR 29-APR-1994: US-235659.
PA (MLCW) MALLINCKRODT MEDICAL INC.
PA (UNMI) UNIV MICHIGAN, Strieter RM;
PI Kunkel SL, Lyle LR, Strieter RM;
PI WPI: 97-153541/14.
PT Radio:labelling neutrophil-activating peptide(s) - for imaging
PT targeted delivery of radioactive agent
PS Example 10: Column 19-20: 15pp: English.
CC W1131 represents mature human monocyte chemoattractant protein-1
CC (MCP-1). MCP-1 was radionuclide labelled and used in a method for
CC imaging a target site in vivo in an animal. Labelled MCP-1 was allowed
CC to accumulate at a target site (having MCP-1 receptors) in the animal
CC and detected so as to image the target site. Any Cys-Cys or Cys-Xaa-Cys
CC chemokine carrying either iodine-123 or iodine-131 can be used in the
CC method. Especially preferred is neutrophil activating peptide-2 (NAP-2)
CC which recognises interleukin-8 receptors and is labelled with
CC technetium-99m, indium-111, copper-62, rhenium-186 or rhenium-188.
CC The method can be used for imaging a site of infection, inflammation,
CC neoplasm, atheromatous lesion or restenosis.
SU Sequence 76 AA:

Query Match 100.0%; Score 44; DB 21; Length 76;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 50 elcadv 55
111111
QY 1 EICADP 6

RESULT 18
ID P90292 standard; peptide; 76 AA.
AC P90292;
DT 17-JAN-1990 (first entry)
DE Peptide from human glioma cell line U-105MG.
KW Glioma; leucocyte; chemotaxis; neoplasms.
OS Human.
FH Key Location/Qualifiers
FT modified_site 1 /label= OTHER
FT /note="Pyroglutamic acid"
PN US7304234-A.
PD 20-JUL-1989.
PR 31-JAN-1989: 030423.
PR 31-JAN-1989: US-304234.
PA (USSH) US Dept. of Health and Human.
PI Yoshimura T; Robinson E; Appella E; Leonard E.
PI WPI: 89-263501/36.
PT New peptide with specific chemotactic activity for monocytes - isolated
PT from glioma or leucocyte cells, useful for treating infections and
PT neoplasms.
PS Disclosure: page 3; 46pp: English.
CC Peptide is derived from glioma cell line U-105MG (ATCC CRU932) or from
CC leukocytes and has mol. wt. 8400. Used to treat infections and neoplasms.
SQ Sequence 76 AA;

Query Match 100.0%; Score 44; DB 1; Length 76;

Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 50 elcadv 55
111111
QY 1 EICADP 6

RESULT 19
ID R53398 standard; Protein; 76 AA.
AC R53398;
DT 15-DEC-1994 (first entry)
DE Sense MCP-1.
KW Antisense; RNA; DNA; monocyte chemotactic protein-1; MCP-1;
KW radionuclide; vascular restenosis; alpha; beta; emitting isotope;
KW diagnosis; monocytes; vascular injury.
OS Mammalian.
FH Key Location/Qualifiers
FT misc_difference 1 /note="Unspecified amino acid"
FT W09409128-A.
PN 28-APR-1994.
PR 20-OCT-1993: U10074.
PR 22-OCT-1992: US-965678.
PA (MLCW) MALLINCKRODT MEDICAL INC.
PI Lyle LR;
PI WPI: 94-151314/18.
PT Anti-sense monocyte chemotactic protein-1 oligo:nucleotide(s) and
PT peptide(s) - is used for inhibiting, treating or imaging areas of
PT vascular restenosis or potential restenosis
PS Disclosure: Page 5; 42pp: English.
CC The sequences given in R53398-99 represent sense and antisense
CC monocyte chemotactic protein-1 (MCP-1) respectively. These
CC oligonucleotides may be labelled with a radionuclide and use
CC therapeutically for the treatment of vascular restenosis.
CC Radiolabelled antisense MCP-1 compounds may be constructed using high
CC energy alpha or beta emitting isotopes rather than the gamma
CC emitters customarily used for diagnostic purposes. Antisense MCP-1
CC compounds inactivate MCP-1 or inhibit production of MCP-1 so that
CC monocytes are not attracted to the area of vascular injury and
CC proliferation of vascular cells is inhibited.
SU Sequence 76 AA;

Query Match 100.0%; Score 44; DB 10; Length 76;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 50 elcadv 55
111111
QY 1 EICADP 6

RESULT 20
ID R87675 standard; protein; 76 AA.
AC R87675;
DT 21-FEB-1996 (first entry)
DE (28-Asp) MCP-1.
KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
KW angioplasty.
OS Homo sapiens.
FH Key Location/Qualifiers
FT modified_site 28 /note="Tyr in the native sequence is replaced by Asp"
FT disulfide_bond 11..36
FT FT disulfide_bond 12..52
PN W09513295-A1.
PD 18-MAY-1995.
PR 07-NOV-1994: U12874.
PR 12-NOV-1993: US-152301.
PA (DAND) DANA FARBER CANCER INST INC.
PI Rollins B; Zhang YJ;
PI WPI: 95-215051/28.
PT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are

PT capable of inhibiting the monocyte chemo-attractant activity of
PT endogenous MCP-1 and can be used to treat restenosis
PS Claim 5; Page 11; 22pp; English.
CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
CC that they inhibit the monocyte chemoattractant activity of endogenous
CC MCP-1, provided that the derivative has not been modified by the
CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
CC are: (1) substitution of 28-Tyr by aspartate; (2) substitution of 24 Arg
CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
CC acids 2-8. The present sequence is a specifically claimed human MCP-1
CC derivative based on the parent protein disclosed in Rollins, Molecular
CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC The peptides can be used to prevent restenosis, e.g. in patients
CC undergoing coronary artery angioplasty.
SQ Sequence 76 AA;

Query Match 100.0%; Score 44; DB 14; Length 76;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 50 eicadp 55
|||||
Qy 1 EICADP 6

RESULT 21
ID R87676 standard; protein: 76 AA.
AC R87676;
DT 21-FEB-1996 (first entry)
DE (24-Arg) MCP-1.
KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
KW angioplasty.
OS Homo sapiens.
FH Key.
FI modified site 24 Location/Qualifiers
FT disulfide bond 11..36 /note= "Arg in the native sequence is replaced by Phe"
FT disulfide bond 12..52
PN MO9513295-A1.
PD 18-MAR-1995.
PF 07-NOV-1994; U12874.
PR 12-NOV-1993; US-152301.
P4 (DAND) DANA FARMER CANCER INST INC.
PI Rollins B, Zhang YJ;
PI WPI: 95-215051/28.
OR Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
PT capable of inhibiting the monocyte chemo-attractant activity of
PT endogenous MCP-1 and can be used to treat restenosis
PS Claim 5; Page 11; 22pp; English.
CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
CC that they inhibit the monocyte chemoattractant activity of endogenous
CC MCP-1, provided that the derivative has not been modified by the
CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
CC are: (1) substitution of 28-Tyr by aspartate; (2) substitution of 24 Arg
CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
CC acids 2-8. The present sequence is a specifically claimed human MCP-1
CC derivative based on the parent protein disclosed in Rollins, Molecular
CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC The peptides can be used to prevent restenosis, e.g. in patients
CC undergoing coronary artery angioplasty.
SQ Sequence 76 AA;

Query Match 100.0%; Score 44; DB 14; Length 76;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 50 eicadp 55
|||||
Qy 1 EICADP 6

RESULT 22
ID W22672 standard; protein: 77 AA.

AC W22672;
DT 19-MAR-1998 (first entry)
DE Bac 2 chemokine beta10 or monocyte chemotactic protein 4 variant.
KW Human; chemokine beta10; Ck beta10; treatment; antagonist;
KW solid tumour; infection; autoimmune disease; asthma; antibody;
KW fibrotic disease; psoriasis; neurodegenerative disease;
KW wound healing; haematopoiesis regulation; gene therapy;
KW chromosome identification; monocyte chemotactic protein 4;
KW leukaemia; MCP-4; Bac 2 variant.
OS Homo sapiens.
PN MO9731098-A1.
PD 28-AUG-1997.
PF 23-FEB-1996; WO02598.
PR 23-FEB-1996; WO-002598.
P4 (HOMA-) HUMAN GENOME SCI INC.
PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
PI Parmelee D, White J;
PI WPI: 97-435153/40.
PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
PT protein 4 - useful to treat tumours, autoimmune disease, infection,
PT asthma and fibrosis
PS Example 11; Fig 5; 83pp; English.
CC The present sequence is human chemokine beta10 (Ck beta10) or
CC monocyte chemotactic protein 4 (MCP-4) Bac 2 variant, which can be
CC used to treat patients deficient in Ck beta10, while a Ck beta10
CC antagonist can be used to reduce excessive levels of Ck beta10. Ck
CC beta10 can be used to treat leukaemia, solid tumours, chronic or
CC opportunistic infections, autoimmune diseases, asthma, fibrotic
CC diseases, psoriasis and neurodegenerative diseases. It also
CC promotes wound healing, regulates haematopoiesis and generates
CC antibodies. Labelled Ck beta10 can be used to identify its cognate
CC receptor, while cells expressing the receptor can be used to screen
CC compounds for (ant)agonist activity. The antagonist can be used to
CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
CC infectious diseases, allergies, prostaglandin dependent fever and
CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
CC syndrome, lung inflammation and atherosclerosis. Ck beta10 CDNA can
CC be used to isolate genes encoding similar peptides, in gene therapy
CC and for chromosome identification.
SQ Sequence 77 AA;

Query Match 100.0%; Score 44; DB 27; Length 77;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 51 eicadp 56
|||||
Qy 1 EICADP 6

RESULT 23
ID R86859 standard; protein: 77 AA.
AC R86859;
DT 20-MAR-1996 (first entry)
DE Mature MCP-1.
KW Antisense; monocyte chemotactic protein-1; MCP-1;
KW "C-C" family; chemoattractant cytokine; chemokine; stimulation;
KW monocyte; chemotaxis; vascular smooth muscle cell; macrophage;
KW proliferation; restenosis; balloon angioplasty.
OS Homo sapiens.
PN MO9519167-A1.
PD 20-JUL-1995.
PF 13-JAN-1995; U00605.
PR 14-JAN-1994; US-182917.
P4 (MLCW) MALLINCKRODT MEDICAL INC.
PI Lyle LR, Thomas-Miller B;
PI WPI: 95-263703/34.
DR N-PSDB; T03528.
DR New anti-sense oligo:nucleotide(s) and peptide(s) for inhibiting
PT restenosis - are directed against C-C family cytokine(s) such as
PT monocyte chemotactic protein, opt. radio:labelled for therapy or
PT imaging
PS Disclosure; Page 5; 50pp; English.

CC This sequence represents the mature form of monocyte chemotactic
 CC protein-1 (MCP-1). MCP-1 is a member of the "C-C" family of
 CC chemotactic cytokines or chemokines. It is a potent stimulator
 CC of monocyte chemotaxis and has an extremely high degree of specificity
 CC for this cell type. MCP-1 is produced by injured vascular smooth muscle
 CC cells and attracts the monocytes and macrophages which infiltrate the
 CC area, releasing growth factors and resulting in proliferation of vascular
 CC smooth muscle and restenosis. Nucleic acid molecules which are antisense
 CC to the MCP-1 mRNA may be used to inhibit translation of MCP-1 and so may
 CC be useful for inhibiting vascular restenosis, partic. following balloon
 CC angioplasty or a related process. The molecule may be radiolabelled to
 CC increase its therapeutic effect or for imaging areas of potential
 CC restenosis.
 S0 Sequence 77 AA:

Query Match 100.0%; Score 44; DB 15; Length 77;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 51 elcadv 56
 |||||
 QY 1 EICADP 6

RESULT 24
 ID W22674 standard; Protein; 79 AA.
 AC W22674;
 DT 19-MAR-1998 (first entry)
 DE Drol1/2 chemokine beta10 or monocyte chemotactic protein 4 variant.
 KW Human; chemokine beta10; CK beta10; treatment; antagonist;
 KW solid tumour; infection; autoimmune disease; asthma; antibody;
 KW fibrotic disease; psoriasis; neurodegenerative disease;
 KW wound healing; haematopoiesis regulation; gene therapy;
 KW chromosome identification; monocyte chemotactic protein 4;
 KW leukaemia; MCP-4; Drol1/2 variant.
 OS Homo sapiens.
 PN W09731098-A1.
 PD 28-AUG-1997.
 PF 23-FEB-1996; U02598.
 PR 23-FEB-1996; WO-002598.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
 PI Parmelee D, White J;
 DR WPI: 97-435153/40.
 PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 PT protein 4 - useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis
 PS Example 11; Fig 5; 83pp; English.
 CC The present sequence is human chemokine beta10 (CK beta10) or
 CC monocyte chemotactic protein 4 (MCP-4) Drol1/2 variant, which can
 CC be used to treat patients deficient in CK beta10, while a CK beta10
 CC antagonist can be used to reduce excessive levels of CK beta10. CK
 CC beta10 can be used to treat leukaemia, solid tumours, chronic or
 CC opportunistic infections, autoimmune diseases, asthma, fibrotic
 CC diseases, psoriasis and neurodegenerative diseases. It also
 CC promotes wound healing, regulates haematopoiesis and generates
 CC antibodies. Labelled CK beta10 can be used to identify its cognate
 CC receptor, while cells expressing the receptor can be used to screen
 CC compounds for (ant)agonist activity. The antagonist can be used to
 CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
 CC infectious diseases, allergies, prostaglandin dependent fever and
 CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
 CC syndrome, lung inflammation and atherosclerosis. CK beta10 cDNA can
 CC be used to isolate genes encoding similar peptides, in gene therapy
 CC and for chromosome identification.
 S0 Sequence 79 AA:

Query Match 100.0%; Score 44; DB 27; Length 79;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Db 53 elcadv 58
 |||||

QY 1 EICADP 6

RESULT 25
 ID W22671 standard; Protein; 82 AA.
 AC W22671;
 DT 19-MAR-1998 (first entry)
 DE Bac 1 chemokine beta10 or monocyte chemotactic protein 4 variant.
 KW Human; chemokine beta10; CK beta10; treatment; antagonist;
 KW solid tumour; infection; autoimmune disease; asthma; antibody;
 KW fibrotic disease; psoriasis; neurodegenerative disease;
 KW wound healing; haematopoiesis regulation; gene therapy;
 KW chromosome identification; monocyte chemotactic protein 4;
 KW leukaemia; MCP-4; Bac 1 variant.
 OS Homo sapiens.
 PN W09731098-A1.
 PD 28-AUG-1997.
 PF 23-FEB-1996; U02598.
 PR 23-FEB-1996; WO-002598.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
 PI Parmelee D, White J;
 DR WPI: 97-435153/40.
 PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 PT protein 4 - useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis
 PS Example 11; Fig 5; 83pp; English.
 CC The present sequence is human chemokine beta10 (CK beta10) or
 CC monocyte chemotactic protein 4 (MCP-4) Bac 1 variant, which can be
 CC used to treat patients deficient in CK beta10, while a CK beta10
 CC antagonist can be used to reduce excessive levels of CK beta10. CK
 CC beta10 can be used to treat leukaemia, solid tumours, chronic or
 CC opportunistic infections, autoimmune diseases, asthma, fibrotic
 CC diseases, psoriasis and neurodegenerative diseases. It also
 CC promotes wound healing, regulates haematopoiesis and generates
 CC antibodies. Labelled CK beta10 can be used to identify its cognate
 CC receptor, while cells expressing the receptor can be used to screen
 CC compounds for (ant)agonist activity. The antagonist can be used to
 CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
 CC infectious diseases, allergies, prostaglandin dependent fever and
 CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
 CC syndrome, lung inflammation and atherosclerosis. CK beta10 cDNA can
 CC be used to isolate genes encoding similar peptides, in gene therapy
 CC and for chromosome identification.
 S0 Sequence 82 AA:

Query Match 100.0%; Score 44; DB 27; Length 82;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 56 elcadv 61
 |||||
 QY 1 EICADP 6

RESULT 26
 ID W17665 standard; peptide; 82 AA.
 AC W17665;
 DT 16-DEC-1997 (first entry)
 DE Stem cell mobilising chemokine Ckbeta-10.
 KW Haematopoietic cell; parasitic infection; colony stimulating factor;
 KW haematopoietic cell; immune response; bacterial infection; transplant;
 KW wound healing; bone marrow; immunosuppression; regeneration;
 KW neoplastic disease; viral disease; gene therapy; cytotoxic drug.
 OS Synthetic.
 PN W09715594-A1.
 PD 01-MAY-1997.
 PF 23-OCT-1996; U16959.
 PR 24-OCT-1995; US-006051.
 PA (SMK) SMITHKLINE BEECHAM CORP.
 PI Kreider BL, Li H, Pelus L, White JR;
 DR WPI: 97-258956/23.
 PT Ten new chemokine(s) able to mobilise stem cells - used where

PT increased levels of haematopoietic cells are required, e.g. to
 PT increase resistance to infection
 PS Claim 7, Page 11-12; 24pp; English.
 CC The present sequence represents a chemokine, CXCR4-10, which is capable
 CC of mobilising stem cells. The chemokine can be used therapeutically to
 CC improve stem cell mobilisation, optionally together with a colony
 CC stimulating factor or other haematopoietic agent. It can be used
 CC wherever an increased level of haematopoietic cells is needed, e.g. to
 CC increase the immune response to chronic infection (particularly
 CC bacterial or parasitic), to promote wound healing, in (transplant)
 CC patients with reduced bone marrow function as a result of
 CC immunosuppressive treatment of disease, and to provide more rapid
 CC regeneration of bone marrow after treatment for neoplastic or viral
 CC diseases. The induced stem cells may be harvested for subsequent return
 CC to the patient, optionally after they have been genetically manipulated
 CC to deliver a selected gene product (gene therapy). The cells may be
 CC co-administered with a cytotoxic drug.
 SQ Sequence 82 AA;

Query Match 100.0%; Score 44; DB 24; Length 82;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 56 eicadp 61
 |||||
 QY 1 EICADP 6

RESULT 27
 ID W40811 standard; Protein; 93 AA.
 AC W40811;
 DT 01-APR-1998 (first entry)
 DE Macrophage-derived chemokine.
 KW Macrophage-derived chemokine; MDC; antibody; binding modulator; therapy;
 KW arthritis; inflammatory disorder; cancer; Crohn's disease;
 KW atherosclerosis.
 OS Homo sapiens.
 FH Key Location/Qualifiers
 FT Peptide 1..24
 FT /note= "leader peptide"
 FT Protein 25..93
 FT /note= "mature protein"
 PN US568927-A.
 PD 18-NOV-1997.
 PF 07-JUN-1995; 480449.
 PR 07-JUN-1995; US-480449.
 PA (ICOS-) ICOS CORP.
 PI Godiska R, Gray PW;
 DR WPI: 98-008038/01.
 DR N-PSDB: T99233.
 PT Antibodies specific for macrophage-derived chemokine - useful for
 PT purifying or detecting the chemokine or modulating its activity
 PS Claim 3; Column 21-24; 22pp; English.
 CC This sequence represents the macrophage-derived chemokine (MDC). This
 CC protein is used to produce the antibodies of the invention. The
 CC antibodies are useful for purifying MDC polypeptides, for detecting
 CC endogenous MDC in a host, and for modulating binding of MDC to its
 CC receptors. The DNA encoding this sequence can be used for identifying and
 CC isolating non-human MDC homologues. The MDC protein is potentially useful
 CC for treating inflammatory disorders, cancer, etc. Antagonists of MDC can
 CC be used for treating Crohn's disease, arthritis, atherosclerosis etc.
 SQ Sequence 93 AA;

Query Match 100.0%; Score 44; DB 27; Length 93;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 74 eicadp 79
 |||||
 QY 1 EICADP 6

RESULT 28

ID W07604 standard; Protein; 93 AA.
 AC W07604;
 DT 03-SEP-1997 (first entry)
 DE Cytokine beta-13 stimulates migration/activation of immune cells.
 KW Chemokine beta 13; C-beta-13; C-C; Cys-Cys subfamily; immune cell;
 KW defence; activation; eosinophil; monocyte; macrophage; T lymphocyte;
 KW T cell; basophil; gene therapy; tumour; cancer; neoplasia; infection;
 KW Kaposi's sarcoma; cirrhosis; osteoarthritis; pulmonary fibrosis;
 KW leukaemia; autoimmune disease; psoriasis; inflammation; allergy;
 OS Homo sapiens.
 FH Key Location/Qualifiers
 FT misc-difference 45
 FT /note= "given as encoded by CAC codon in T44026"
 FT PN W06639521-A1.
 PD 12-DEC-1996.
 PF 06-JUN-1995; U07294.
 PR 06-JUN-1995; WO-007294.
 PA (HDNA-) HUMAN GENOME SCI INC.
 PI (SMR) SMITHKLINE BEECHAM CORP.
 PI LI H, Seibel G;
 DR WPI: 97-043143/04.
 DR N-PSDB: T44026.
 PT Human chemokine beta-13 - useful for treating solid tumours,
 PT leukaemia, infections, autoimmune disease, fibrotic disorders,
 PT psoriasis, etc.
 PS Claim 10; Page 46; 58pp; English.
 CC W07604 shows human chemokine beta-13 (Ck-beta-13), a member of the
 CC C-C (Cys-Cys) branch of intercrine chemokines. Ck-beta-13 is useful for
 CC treating patients lacking chemokine beta-13 by gene therapy. Ck-beta-13
 CC stimulates the invasion and activation of host defence cells making it
 CC useful for treating solid tumours, e.g. Kaposi's sarcoma, and for
 CC enhancing resistance to acute and chronic infections, e.g. mycobacterial
 CC infections. The chemokine induces chemotactic migration of monocytes,
 CC neutrophils, eosinophils, T lymphocytes, basophils and fibroblasts to
 CC sites where they are needed. Eosinophils may be attracted to the site
 CC of a parasitic infection to kill parasite larvae. Ck-beta-13 also
 CC recruits debris-clearing and connective tissue promoting inflammatory
 CC cells, and is therefore used to stimulate wound healing, prevent
 CC scarring and treat liver cirrhosis, osteoarthritis and pulmonary
 CC fibrosis. Ck-beta-13 may also be used for treating leukaemia, T-cell
 CC mediated autoimmune diseases, psoriasis, to regulate haematopoiesis and
 CC to inhibit angiogenesis. Ck-beta-13 antagonists inhibit activity of the
 CC chemokine which is useful for treating certain autoimmune diseases,
 CC atherosclerosis, chronic inflammatory and infective diseases, allergic
 CC reactions, rheumatoid arthritis, siliocosis and bone marrow failure.
 SQ Sequence 93 AA;

Query Match 100.0%; Score 44; DB 23; Length 93;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 74 eicadp 79
 |||||
 QY 1 EICADP 6

RESULT 29
 ID W20058 standard; Protein; 93 AA.
 AC W20058;
 DT 11-SEP-1997 (first entry)
 DE Macrophage derived chemokine for treating inflammation.
 KW MDC; macrophage derived chemokine; C-C; Cys-Cys; Crohn's disease;
 KW rheumatoid arthritis; chemotaxis; fibroblast proliferation;
 KW wound healing; angiogenesis; inflammation.
 OS Homo sapiens.
 FH Key Location/Qualifiers
 FT Peptide 1..24
 FT /label= sig_peptide
 FT Protein 25..93
 FT /label= mat_protein
 PN W09640923-A1.
 PD 19-DEC-1996.

PF 07-JUN-1996; U10114.
 PR 07-JUN-1995; US-479620.
 PR 16-NOV-1995; US-558658.
 PA (ICOS-) ICOS CORP.
 PI Godiska R, Gray PW;
 DR WPI: 97-052324/05.
 DR N-PSDB: T76529.
 PT Macrophage derived chemokine (MDC) and analogues - used in the
 PT treatment of inflammatory diseases, MDC antibodies used to treat
 PT Crohn's disease, rheumatoid arthritis, etc.
 PS Claim 1; Page 73; 106pp; English.
 CC A new macrophage derived chemokine, MDC, a member of the C-C
 CC (Cys-Cys) subfamily of cytokines has been isolated. MDC and its
 CC analogues may be used in the treatment of inflammatory diseases
 CC especially diseases characterised by monocyte chemotaxis towards a
 CC site of inflammation. MDC and its analogues also induce fibroblast
 CC proliferation having a positive effect in wound healing and
 CC angiogenesis. They may prove to be clinically important in the
 CC treatment of tumours, by directly or indirectly inhibiting tumour
 CC formation. Antibodies directed against MDC and its analogues may be
 CC used in the treatment of Crohn's disease, rheumatoid arthritis and
 CC atherosclerosis. Probes and/or primers for the identification of MDC
 CC encoding sequences can be derived from MDC encoding sequences.
 SQ Sequence 93 AA;

Query Match 100.0%; Score 44; DB 23; Length 93;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 74 eicadp 79
 |||||
 QY 1 EICADP 6

RESULT 30
 ID W30191 standard: Protein; 98 AA.
 AC W30191;
 DT 21-MAR-1998 (first entry)
 DE Monocyte chemotactic protein 5.
 KW Monocyte chemotactic protein 5; MCP-5; human; macrophage;
 KW chemokine; inhibitor; antiinflammatory; atherosclerosis;
 KW Crohn's disease; arthritis; angiogenesis; tumour; metastasis;
 KW therapy; diagnosis; medical imaging.
 OS Homo sapiens.
 TM Key Location/Qualifiers
 FT Peptide 1..23
 FT /label- Sig-peptide
 FT Protein 24..98
 FT /label- Mat-protein
 FT /note- "(Claim 4)"
 PN W09735982-A2.
 PD 02-OCT-1997.
 PE 26-MAR-1997; U04898.
 PR 27-MAR-1996; US-622851.
 PA (ICOS-) ICOS CORP.
 PI Godiska R, Gray PW;
 DR WPI: 97-489645/45.
 DR N-PSDB: T90880.
 PT Polynucleotide encoding monocyte chemotactic protein-5 - useful in
 PT treatment of e.g. inflammation, atherosclerosis, angiogenesis and
 PT tumours
 PS Claim 1; Page 36-37; 47pp; English.
 CC This polypeptide comprises human macrophage-derived
 CC monocyte chemotactic protein-5 (MCP-5), a novel C-C chemokine.
 CC Its amino acid sequence was deduced from a cDNA clone (see
 CC T90880 and T90883) isolated from a human macrophage cDNA
 CC library. A claimed method for producing MCP-5 comprises
 CC culturing a host cell that is stably transformed or transfected
 CC with MCP-5 polynucleotide. Also claimed is a hybridoma that
 CC produces a monoclonal antibody (MAb) that is specifically
 CC reactive with the mature MCP-5. MCP-5 (or its analogues and
 CC fragments) is used to enhance the immune response in cases of
 CC wounds or infections, while its inhibitors (e.g. the MAb) are

CC useful as anti-inflammatories in cases of e.g. arthritis and
 CC Crohn's disease, also for treatment of atherosclerosis,
 CC angiogenesis and tumour growth (or metastasis). The MCP-5
 CC inhibitors can possibly also be used to reduce the damaging effects
 CC of chemo- and radio-therapy on myeloid progenitor cells, and to
 CC inhibit replication of HIV. MCP-5 can also be used to identify
 CC its cognate receptor, while MCP-5 peptides (or the analogues or
 CC receptors) are used to modulate MCP-5 activity and to identify
 CC MCP-5 agonists and antagonists.
 SQ Sequence 98 AA;

Query Match 100.0%; Score 44; DB 28; Length 98;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 72 eicadp 77
 |||||
 QY 1 EICADP 6

Search completed: Thu Apr 1 07:30:48 1999
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Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 40 eicadp 45
|||||
QY 1 EICADP 6

RESULT 2

ID W13599 standard; peptide: 67 AA.

AC W13599;
DI 07-NOV-1997 (first entry)
DE Monocyte chemoattractant protein analogue MCP-1 (11-76).
KW Truncated monocyte chemoattractant protein-1; inhibitor;
KM receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
KW lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PA (LEWIS/) LEWIS I.
PI Gong U, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Disclosure, Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (11-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-10 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammatory sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 67 AA;

Query Match 100.0%; Score 44; DB 24; Length 67;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 41 eicadp 46
|||||
QY 1 EICADP 6

RESULT 3
ID R73915 standard; protein: 67 AA.
AC R73915;
DI 05-DEC-1995 (first entry)
DE Human monocyte chemoattractant factor hmCP-3.
KW Human monocyte chemoattractant factor; hmCP-3; chemokine; vaccine;
KW meningitis related homologous antigenic sequence; MRHAS; RV-1;
KW immunosassay; diagnosis; treatment; prophylactic; bacterial;
KW viral.
OS Homo sapiens.
PN WO9509232-A.
PD 06-APR-1995.
PF 28-SEP-1994; CA0516.
PR 28-SEP-1993; US-127499.
PA (SHAR/) SHARMA L R.
PA (VALS/) VAN ALSTYNE D.
PI Sharma LR, Van Alstyne D;
DR WPI: 95-147431/19.
PT New peptide(s) and corresp. antibodies for the treatment of
PT meningitis - the peptide(s) corresp. to homologous antigenic

PT sites on bacterial and viral agents and on chemokine(s), used for
PT detecting and preventing meningitis
PS Claim 47; Fig 8/10; 98pp; English.

CC R73915 is the chemokine Human monocyte chemoattractant factor hmCP-3.
CC It contains the meningitis related antigenic sequences (MRHAS) claimed
CC in R73896 and R73908, which are recognised by a monoclonal antibody
CC from the hybridoma Rubella virus (RV)-1. The claimed MRHAS peptides
CC may be used in immunoassays to diagnose the presence of bacterial
CC and/or viral meningitis agents in a sample, or in prophylactic and
CC therapeutic meningitis treatments. The peptides may also be used as
CC vaccines against meningitis
CC NB: Identified by matching corresponding MRHAS peptides.
SQ Sequence 67 AA;

Query Match 100.0%; Score 44; DB 14; Length 67;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 41 eicadp 46
|||||
QY 1 EICADP 6

RESULT 4
ID W17668 standard; peptide: 68 AA.
AC W17668;
DI 16-DEC-1997 (first entry)
DE Stem cell mobilising chemokine CXbeta-13.
KW Haematopoietic cell; parasitic infection; colony stimulating factor;
KW haematoregulator; immune response; bacterial infection; transplant;
KW wound healing; bone marrow; immunosuppression; regeneration;
KW neoplastic disease; viral disease; gene therapy; cytotoxic drug.
OS Synthetic.
PN WO9715594-A1.
PD 01-MAY-1997.
PF 23-OCT-1996; U16959.
PR 24-OCT-1995; US-006051.
PA (SMIR) SMITHKLINE BEECHAM CORP.
PI Kreider BL, Li H, Pelus L, White JR;
DR WPI: 97-256956/23.
PT Ten new chemokine(s) able to mobilise stem cells - used where
PT increased levels of haematopoietic cells are required, e.g. to
PT increase resistance to infection
PS Claim 10; Page 13; 24pp; English.
CC The present sequence represents a chemokine, CXbeta-13, which is capable
CC of mobilising stem cells. The chemokine can be used therapeutically to
CC improve stem cell mobilisation, optionally together with a colony
CC stimulating factor or other haematoregulatory agent. It can be used
CC wherever an increased level of haematopoietic cells is needed, e.g. to
CC increase the immune response to chronic infection (particularly
CC bacterial or parasitic), to promote wound healing, in (transplant)
CC patients with reduced bone marrow function as a result of
CC immunosuppressive treatment or disease, and to provide more rapid
CC regeneration of bone marrow after treatment for neoplastic or viral
CC diseases. The induced stem cells may be harvested for subsequent return
CC to the patient, optionally after they have been genetically manipulated
CC co-administered with a cytotoxic drug.
SQ Sequence 68 AA;

Query Match 100.0%; Score 44; DB 24; Length 68;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 49 eicadp 54
|||||
QY 1 EICADP 6

RESULT 5
ID W13597 standard; peptide: 68 AA.
AC W13597;
DI 07-NOV-1997 (first entry)

DE Monocyte chemoattractant protein analogue MCP-1 (9-76).
 KW Truncated monocyte chemoattractant protein-1; inhibitor;
 KW receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
 KW chronic inflammatory disease; arthritis; arteriosclerosis;
 KW lung disease.
 OS Homo sapiens.
 PN CA2152141-A.
 PD 20-DEC-1996.
 PF 19-JUN-1995; 152141.
 PR 19-JUN-1995; CA-152141.
 PA (LEWIS) LEWIS I.
 PI Gong J, Lewis I;
 DR WPI: 97-165844/16.
 PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
 PT lacks MCP-1 activity and inhibits receptor binding, useful as
 PT anti-inflammatory agent
 PS Claim 7, Page 5; 27pp; English.
 CC The present sequence represents an analogue, MCP-1 (9-76), of monocyte
 CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
 CC N-terminal amino acids 1-8 of MCP-1, acts as an antagonist of MCP-1
 CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
 CC receptor. The analogue is useful as an anti-inflammatory agent to block
 CC the effects of MCP-1 which is an inflammatory mediator causing migration
 CC of monocytes and other cells e.g. basophils and lymphocytes into
 CC inflammatory sites. MCP-1 has been implicated in allergic and chronic
 CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
 CC diseases. The analogue competes more effectively with MCP-1 for binding
 CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
 CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
 CC with 75:1 for prior art mutant 7ND.
 SQ Sequence 68 AA;

Query Match 100.0%; Score 44; DB 24; Length 68;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 42 eicadp 47
 |||||
 QY 1 EICADP 6

RESULT 6
 ID W20062 standard; Protein: 69 AA.
 AC W20062;
 DT 11-SEP-1997 (first entry)
 DE Human macrophage derived chemokine analogue.
 KW MDC; macrophage derived chemokine; C-C; Cys-Cys; Crohn's disease;
 KW rheumatoid arthritis; chemotaxis; fibroblast proliferation;
 KW wound healing; angiogenesis; inflammation.
 OS Synthetic.
 PN WO9640923-A1.
 PD 19-DEC-1996.
 PF 07-JUN-1996; U10114.
 PR 07-JUN-1995; US-479620.
 PR 16-NOV-1995; US-558658.
 PA (ICOS-) ICOS CORP.
 PI Godiska R, Gray PM;
 DR WPI: 97-052324/05.
 PT Macrophage derived chemokine (MDC) and analogues - used in the
 PT treatment of inflammatory diseases, MDC antibodies used to treat
 PT Crohn's disease, rheumatoid arthritis, etc.
 PS Claim 25; Page 84; 106pp; English.
 CC A new macrophage derived chemokine, MDC, a member of the C-C
 CC (Cys-Cys) subfamily of cytokines has been isolated. MDC and it's
 CC analogues may be used in the treatment of inflammatory diseases
 CC especially diseases characterised by monocyte chemotaxis towards a
 CC site of inflammation. MDC and it's analogues also induce fibroblast
 CC proliferation having a positive effect in wound healing and
 CC angiogenesis. They may prove to be clinically important in the
 CC treatment of tumours, by directly or indirectly inhibiting tumour
 CC formation. Antibodies directed against MDC and its analogues may be
 CC used in the treatment of Crohn's disease, rheumatoid arthritis and
 CC atherosclerosis. Probes and/or primers for the identification of MDC

CC encoding sequences can be derived from MDC encoding sequences.
 SQ Sequence 69 AA;

Query Match 100.0%; Score 44; DB 23; Length 69;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 50 eicadp 55
 |||||
 QY 1 EICADP 6

RESULT 7
 ID R87678 standard; protein: 69 AA.
 AC R87678;
 DT 21-FEB-1996 (first entry)
 DE des(2-8) MCP-1.
 KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
 KW angioplasty.
 OS Homo sapiens.
 FH Key
 FT modified_site 2..3
 FT location/Qualifiers
 FT /note="amino acids 2-8 of the native protein have
 FT been deleted between these residues"
 FT disulfide_bond 4..29
 FT disulfide_bond 5..45
 FT PN WO9513295-A1.
 PD 18-MAY-1995.
 PE 07-NOV-1994; U12874.
 PR 12-NOV-1993; US-152301.
 PA (DAND) DANA FARBER CANCER INST INC.
 PI Rollins B, Zhang YJ;
 DR WPI: 95-215051/28.
 PT Human monocyte chemoattractant protein-1 (MCP-1) derivs. - are
 PT capable of inhibiting the monocyte chemoattractant activity of
 PT endogenous MCP-1 and can be used to treat restenosis
 PS Claim 4; Page 11; 22pp; English.
 CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
 CC that they inhibit the monocyte chemoattractant activity of endogenous
 CC MCP-1, provided that the derivative has not been modified by the
 CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
 CC are: (1) substitution of 28-Tyr by aspartate; (2) substitution of 24-Arg
 CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
 CC acids 2-8. The present sequence is a specifically claimed human MCP-1
 CC derivative based on the parent protein disclosed in Rollins, Molecular
 CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989
 CC The peptides can be used to prevent restenosis, e.g. in patients
 CC undergoing coronary artery angioplasty.
 SQ Sequence 69 AA;

Query Match 100.0%; Score 44; DB 14; Length 69;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 43 eicadp 48
 |||||
 QY 1 EICADP 6

RESULT 8
 ID W20061 standard; Protein: 69 AA.
 AC W20061;
 DT 11-SEP-1997 (first entry)
 DE Human macrophage derived chemokine analogue.
 KW MDC; macrophage derived chemokine; C-C; Cys-Cys; Crohn's disease;
 KW rheumatoid arthritis; chemotaxis; fibroblast proliferation;
 KW wound healing; angiogenesis; inflammation.
 OS Synthetic.
 PN WO9640923-A1.
 PD 19-DEC-1996.
 PF 07-JUN-1996; U10114.
 PR 07-JUN-1995; US-479620.
 PR 16-NOV-1995; US-558658.

PA (ICOS-) ICOS CORP.
PI Godiska R, Gray PW.
DR WPI: 97-052324/05.
PT Macrophage derived chemokine (MDC) and analogues - used in the treatment of inflammatory diseases. MDC antibodies used to treat Crohn's disease, rheumatoid arthritis, etc.
PS Claim 25; Page 84; 106pp; English.
CC A new macrophage derived chemokine, MDC, a member of the C-C (Cys-Cys) subfamily of cytokines has been isolated. MDC and it's analogues may be used in the treatment of inflammatory diseases especially diseases characterised by monocyte chemotaxis towards a site of inflammation. MDC and it's analogues also induce fibroblast proliferation having a positive effect in wound healing and angiogenesis. They may prove to be clinically important in the treatment of tumours, by directly or indirectly inhibiting tumour formation. Antibodies directed against MDC and its analogues may be used in the treatment of Crohn's disease, rheumatoid arthritis and atherosclerosis. Probes and/or primers for the identification of MDC encoding sequences can be derived from MDC encoding sequences.
SQ Sequence 69 AA;

Query Match 100.0%; Score 44; DB 23; Length 69;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 50 elcadd 55
|||||
QY 1 EICADP 6

RESULT 9
ID M13596 standard; peptide: 69 AA.
AC W13596;
DE 07-NOV-1997 (first entry)
DT Monocyte chemoattractant protein analogue MCP-1 (8-76).
KW Truncated monocyte chemoattractant protein-1; inhibitor;
KW receptor binding; anti-inflammatory; Dasophal; lymphocyte; allergy;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
KW lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PA (LEWIS) LEWIS I.
PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) - anti-inflammatory agent
PS Claim 5; Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (8-76), of monocyte chemoattractant protein-1 (MCP-1). The analogue, which lacks the N-terminal amino acids 1-7 of MCP-1, acts as an antagonist of MCP-1 as it lacks MCP-1 biological activity and inhibits binding to a MCP-1 receptor. The analogue is useful as an anti-inflammatory agent to block the effects of MCP-1 which is an inflammatory mediator causing migration of monocytes and other cells e.g. basophils and lymphocytes into inflammation sites. MCP-1 has been implicated in allergic and chronic inflammatory diseases e.g. arthritis, arteriosclerosis and several lung diseases. The analogue competes more effectively with MCP-1 for binding MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably providing 50% inhibition of binding at a 25:1 ratio or less, compared with 75:1 for prior art mutant 7ND.
SQ Sequence 69 AA;

Query Match 100.0%; Score 44; DB 24; Length 69;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 43 elcadd 48
|||||
QY 1 EICADP 6

RESULT 10
ID W20060 standard; Protein: 70 AA.
AC W20060;
DE 11-SEP-1997 (first entry)
DT Human macrophage derived chemokine analogue.
KW MDC; macrophage derived chemokine; C-C; Cys-Cys; Crohn's disease; rheumatoid arthritis; chemotaxis; fibroblast proliferation;
KW wound healing; angiogenesis; inflammation.
OS Synthetic.
PN W09640923-A1.
PD 19-DEC-1996.
PF 07-JUN-1996; U10114.
PR 07-JUN-1995; US-479620.
PR 16-NOV-1995; US-558658.
PA (ICOS-) ICOS CORP.
PI Godiska R, Gray PW;
DR WPI: 97-052324/05.
PT Macrophage derived chemokine (MDC) and analogues - used in the treatment of inflammatory diseases, MDC antibodies used to treat Crohn's disease, rheumatoid arthritis, etc.
PS Claim 25; Page 83; 106pp; English.
CC A new macrophage derived chemokine, MDC, a member of the C-C (Cys-Cys) subfamily of cytokines has been isolated. MDC and it's analogues may be used in the treatment of inflammatory diseases especially diseases characterised by monocyte chemotaxis towards a site of inflammation. MDC and it's analogues also induce fibroblast proliferation having a positive effect in wound healing and angiogenesis. They may prove to be clinically important in the treatment of tumours, by directly or indirectly inhibiting tumour formation. Antibodies directed against MDC and its analogues may be used in the treatment of Crohn's disease, rheumatoid arthritis and atherosclerosis. Probes and/or primers for the identification of MDC encoding sequences can be derived from MDC encoding sequences.
SQ Sequence 70 AA;

Query Match 100.0%; Score 44; DB 23; Length 70;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 51 elcadd 56
|||||
QY 1 EICADP 6

RESULT 11
ID W22675 standard; Protein: 71 AA.
AC W22675;
DE 19-MAR-1998 (first entry)
DT Drol3+ chemokine beta10 or monocyte chemotactic protein 4 variant.
KW Human; chemokine beta10; Ck beta10; treatment; antagonist;
KW solid tumour; infection; autoimmune disease; asthma; antibody;
KW fibrotic disease; psoriasis; neurodegenerative disease;
KW wound healing; haematopoiesis regulation; gene therapy;
KW chromosome identification; monocyte chemotactic protein 4;
KW leukaemia; MCP-4; Drol3+ variant.
OS Homo sapiens.
PN W09731098-A1.
PD 28-AUG-1997.
PF 23-FEB-1996; W02598.
PR 23-FEB-1996; WO-U02598.
PA (HUMA-) HUMAN GENOME SCI INC.
PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
PI Parmelee D, White J;
DR WPI: 97-435153/40.
PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic protein 4 - useful to treat tumours, autoimmune disease, infection, asthma and fibrosis
PS Example 11; Fig 5; 83pp; English.
CC The present sequence is human chemokine beta10 (Ck beta10) or monocyte chemotactic protein 4 (MCP-4) Drol3+ variant, which can be used to treat patients deficient in Ck beta10, while a Ck beta10

CC antagonist can be used to reduce excessive levels of Ck betalo. Ck
CC betalo can be used to treat leukaemia, solid tumours, chronic or
CC opportunistic infections, autoimmune diseases, asthma, fibrotic
CC diseases, psoriasis and neurodegenerative diseases. It also
CC promotes wound healing, regulates haematopoiesis and generates
CC antibodies. Labeled Ck betalo can be used to identify its cognate
CC receptor, while cells expressing the receptor can be used to screen
CC compounds for (ant)agonist activity. The antagonist can be used to
CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
CC infectious diseases, allergies, prostaglandin dependent fever and
CC bone marrow failure, sllcosis, sarcoidosis, hyper-eosinophilic
CC syndrome, lung inflammation and atherosclerosis. Ck betalo cDNA can
CC be used to isolate genes encoding similar peptides, in gene therapy
CC and for chromosome identification.

Query Match 100.0%; Score 44; DB 27; Length 71;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 45 eicadp 50
Qy 1 EICADP 6

RESULT 12
ID W22673 standard; Protein; 75 AA.
AC W22673;
DT 19-MAR-1998 (first entry)
DE Bac 3 chemokine betalo or monocyte chemotactic protein 4 variant.
KW Human; Chemokine betalo; Ck betalo; treatment; antagonist;
KW solid tumour; infection; autoimmune disease; asthma; antibody;
KW fibrotic disease; psoriasis; neurodegenerative disease;
KW wound healing; haematopoiesis regulation; gene therapy;
KW chromosome identification; monocyte chemotactic protein 4;
KW leukaemia; MCP-4; Bac 3 variant.
OS Homo sapiens.
PN WO9731098-A1.
PE 28-AUG-1997.
PR 23-FEB-1996; U02598.
PI (HUMA-) HUMAN GENOME SCI INC.
PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
PI Parmelee D, White J;
DR WPI: 97-435153/40.
PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
PT protein 4 - useful to treat tumours, autoimmune disease, infection,
PT asthma and fibrosis
PS Example 11; Fig 5; 83pp; English.
CC The present sequence is human chemokine betalo (Ck betalo) or
CC monocyte chemotactic protein 4 (MCP-4) Bac 3 variant, which can be
CC used to treat patients deficient in Ck betalo, while a Ck betalo
CC antagonist can be used to reduce excessive levels of Ck betalo. Ck
CC betalo can be used to treat leukaemia, solid tumours, chronic or
CC opportunistic infections, autoimmune diseases, asthma, fibrotic
CC diseases, psoriasis and neurodegenerative diseases. It also
CC promotes wound healing, regulates haematopoiesis and generates
CC antibodies. Labeled Ck betalo can be used to identify its cognate
CC receptor, while cells expressing the receptor can be used to screen
CC compounds for (ant)agonist activity. The antagonist can be used to
CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
CC infectious diseases, allergies, prostaglandin dependent fever and
CC bone marrow failure, sllcosis, sarcoidosis, hyper-eosinophilic
CC syndrome, lung inflammation and atherosclerosis. Ck betalo cDNA can
CC be used to isolate genes encoding similar peptides, in gene therapy
CC and for chromosome identification.

Query Match 100.0%; Score 44; DB 27; Length 75;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Db 49 eicadp 54

Qy 1 EICADP 6

RESULT 13
ID R87677 standard; protein; 76 AA.
AC R87677;
DT 21-FEB-1996 (first entry)
DE (3-Ala) MCP-1.
KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
KW angioplasty.
OS Homo sapiens.
FT Homo sapiens.
FT modified_site 3 location/Qualifiers
FT disulfide_bond 11..36 /note="asp in the native sequence is replaced by Ala"
FT disulfide_bond 12..52
PN WO9513295-A1.
PD 18-MAR-1995.
PE 07-NOV-1994; U12874.
PR 12-NOV-1993; US-152301.
PI (DAND) DANA FARBER CANCER INST INC.
PI Rollins B, Zhang XT;
DR WPI: 95-215051/28.
PT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
PT capable of inhibiting the monocyte chemo-attractant activity of
PT endogenous MCP-1 and can be used to treat restenosis
PS Claim 6; Page 11; 22pp; English.
CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
CC that they inhibit the monocyte chemoattractant activity of endogenous
CC MCP-1, provided that the derivative has not been modified by the
CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
CC are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg
CC by Phe; (3) substitution of 3-asp by Ala; and/or (4) deletion of amino
CC acids 2-8. The present sequence is a specifically claimed human MCP-1
CC derivative based on the parent protein disclosed in Rollins, Molecular
CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC The peptides can be used to prevent restenosis, e.g. in patients
CC undergoing coronary artery angioplasty.

Query Match 100.0%; Score 44; DB 14; Length 76;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 50 eicadp 55
Qy 1 EICADP 6

RESULT 14
ID R87680 standard; protein; 76 AA.
AC R87680;
DT 05-MAR-1996 (first entry)
DE Monocyte chemotactic activating factor for use as wound remedy.
KW monocyte chemotactic activating factor; MCAF; wound remedy.
OS Homo sapiens.
PN WO9507710-A1.
PD 23-MAR-1995.
PE 13-SEP-1994; J01512.
PR 13-SEP-1993; JP-227385.
PI (TORA) TORAY IND INC.
PI Matsushima K, Naruto M;
DR WPI: 95-131181/17.
PT Wound treatment using monocyte chemotactic factor - has potent
PT therapeutic effect on skin wounds and ulcers
PS Disclosure; Page 12; 22pp; Japanese.
CC The invention relates to a new remedy for curing wounds which, instead
CC of comprising a growth factor, comprises a monocyte chemotactic
CC activating factor (MCAF) or its variants or derivatives. The factor has
CC potent effect on skin wounds and ulcers. The present sequence is human
CC MCAF, the activity of which is exemplified as the new remedy.

Query Match 100.0%; Score 44; DB 15; Length 76;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

DB 50 elcadv 55
 1 EICADP 6

RESULT 15
 ID R28660 standard; Protein: 76 AA.
 AC R28660;
 DT 24-MAR-1993 (first entry)
 DE MCF.
 KW Plasmid; monocyte chemotactic factor; MCF; translation;
 KW termination; terminator; initiation; ribosome binding site;
 KW RBS; promoter; tryptophan; repressor.
 OS Synthetic.
 PN WO9219737-A.
 PD 12-NOV-1992.
 PE 27-APR-1992: J00550.
 PR 09-MAY-1991: JP-135950.
 PA (DAIN) DAINIPPON PHARM CO LTD.
 PI Fukui T, Matsuo N, Yamada M, Yamagishi J;
 DR N-PSDB: Q30745-46.
 PT Prod. of polypeptide(s) having monocyte chemotactic activity -
 PT using expression plasmids with E. coli elements and specific
 PS Claim 1, Page 48 + Page 36; 56pp; English.
 CC An expression plasmid, pHM483, for producing MCF(76) consisting
 CC of 76 amino acids was constructed. The prod. can be used for e.g.
 CC treating bacterial infectious diseases.
 SC Sequence 76 AA.

Query Match 100.0%; Score 44; DB 5; Length 76;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

DB 50 elcadv 55
 1 EICADP 6

RESULT 16
 ID W09374 standard; Protein: 76 AA.
 AC W09374;
 DT 21-MAR-1997 (first entry)
 DE Monocyte chemotactic protein 1.
 KW Human; monocyte chemoattractant protein; antisense; inhibition;
 KW mononuclear cell; lymphocyte; macrophage; smooth muscle cell;
 KW vascular stenosis.
 OS Homo sapiens.
 FH Key
 FT misc_difference 1 Location/Qualifiers
 FT misc_difference 51 /note= "encoded by codon CAG"
 FT misc_difference 51 /note= "encoded by codon AUG"
 FT misc_difference 65 /note= "encoded by codon CAC"
 PN US557173-A.
 PD 05-NOV-1996.
 PE 22-OCT-1992: 965678.
 PR 22-OCT-1992: US-965678.
 PR 27-MAY-1994: US-250958.
 PA (UNMI) UNIV MICHIGAN.
 PI Kunkel SL, Lyle LR, Strieter RM;
 DR N-PSDB: T48092.
 DR N-PSDB: T48092.
 PT Anti-sense Monocyte Chemotactic Protein-1 oligo:nucleotide(s) -
 PT useful for therapy or diagnosis of restenosis, etc.
 PS Disclosure: Column 13-14; 16pp; English.

CC This is the amino acid sequence of the human monocyte chemoattractant
 CC protein (MCP)-1, a member of the C-C chemokine family. MCP-1 is a potent
 CC stimulator of monocyte chemotaxis and is produced by injured vascular
 CC smooth cells thus attracting monocytes and macrophages which infiltrate
 CC the injured area and release growth factor. This causes proliferation of
 CC the vascular smooth cells resulting in restenosis. The gene sequence can
 CC be used to generate antisense sequences e.g. T48093-7, which can be used
 CC to inhibit in vitro MCP-1 prod. by mononuclear cells e.g. lymphocytes or
 CC macrophages, or smooth muscle cells, esp. in order to prevent vascular
 CC restenosis.
 SC Sequence 76 AA:

Query Match 100.0%; Score 44; DB 20; Length 76;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

DB 50 elcadv 55
 1 EICADP 6

RESULT 17
 ID W1131 standard; protein: 76 AA.
 AC W1131;
 DT 10-JUN-1997 (first entry)
 DE Mature human monocyte chemoattractant protein-1 (MCP-1).
 KW MCP-1; mature chemoattractant protein-1; cytokine; interleukin-8;
 KW IL-8; neutrophil activating peptide; labelling; imaging; targeting;
 KW radionuclide; infection; inflammation; neoplasm; atheromatous lesion;
 KW restenosis.
 OS Homo sapiens.
 FH Key
 FT misc_difference 1 /note= "X= any amino acid"
 FT misc_difference 1 /note= "X= any amino acid"
 PN US5605671-A.
 PD 25-FEB-1997.
 PE 05-OCT-1992: 956862.
 PR 05-OCT-1992: US-956863.
 PR 05-OCT-1992: US-956862.
 PR 29-APR-1994: US-235659.
 PA (MLCW) MALINCRODT MEDICAL INC.
 PA (UNMI) UNIV MICHIGAN.
 PI Kunkel SL, Lyle LR, Strieter RM;
 DR WPI: 97-153541/14.
 PT Radio:labelling neutrophil-activating peptide(s) - for imaging
 PT targeted delivery of radioactive agent
 PS Example 10; Column 19-20; 15pp; English.
 CC W1131 represents mature human monocyte chemoattractant protein-1
 CC (MCP-1). MCP-1 was radionuclide labelled and used in a method for
 CC imaging a target site in vivo in an animal. Labelled MCP-1 was allowed
 CC to accumulate at a target site (having MCP-1 receptors) in the animal
 CC and detected so as to image the target site. Any Cys-Cys or Cys-Xaa-Cys
 CC chemokine carrying either iodine-123 or iodine-131 can be used in the
 CC method. Especially preferred is neutrophil activating peptide-2 (NAP-2)
 CC which recognises interleukin-8 receptors and is labelled with
 CC technetium-99m, indium-111, copper-67, rhenium-186 or rhenium-188.
 CC The method can be used for imaging a site of infection, inflammation,
 CC neoplasm, atheromatous lesion or restenosis.
 SC Sequence 76 AA:

Query Match 100.0%; Score 44; DB 21; Length 76;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

DB 50 elcadv 55
 1 EICADP 6

RESULT 18
 ID P90292 standard; peptide: 76 AA.
 AC P90292;
 DT 17-JAN-1990 (first entry)

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DE Peptide from human glioma cell line U-105MG.
KW Glioma; leucocyte; chemotaxis; neoplasms.
OS Human.
FH Key 1 Location/Qualifiers
FT modified_site /label=OTHER
FT modified_site /note="pyroglutamic acid"
PN US7304234-A.
PD 20-JUL-1989.
PF 31-JAN-1989; 030423.
PR 31-JAN-1989; US-304234.
PA (USSH) US Dept. of Health and Human.
PI Yoshimura T; Rodinson E; Appella E; Leonard E.
DR WPI; 89-263501/36.
PT New peptide with specific chemotactic activity for monocytes - isolated from glioma or leucocyte cells, useful for treating infections and neoplasms.
PS Disclosure; page 3; 46pp; English.
CC Peptide is derived from glioma cell line U-105MG (ATCC CRL9932) or from leucocytes and has mol. wt. 8400. Used to treat infections and neoplasms.
SQ Sequence 76 AA;

Query Match 100.0%; Score 44; DB 1; Length 76;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 50 eicadp 55
QY 1 EICADP 6

RESULT 19
ID R53398 standard; Protein; 76 AA.
AC R53398;
DE 15-DEC-1994 (first entry)
DE Sense MCP-1.
KW Antisense; RNA; DNA; monocyte chemotactic protein-1; MCP-1; radionuclide; vascular restenosis; alpha; beta; emitting isotope; diagnosis; monocytes; vascular injury.
OS Mammalian.
FH Key Location/Qualifiers
FT misc_difference 1 /note="Unspecified amino acid"
FT PN W09409128-A.
PD 28-APR-1994.
PF 20-OCT-1993; U10074.
PR 22-OCT-1992; US-965678.
PA (MCM ) MALLINCKRODT MEDICAL INC.
PI Lyle LR;
DR WPI; 94-151314/18.
PT Anti-sense monocyte chemotactic protein-1 oligo:nucleotide(s) and peptide(s) - is used for inhibiting, treating or imaging areas of PT vascular restenosis or potential restenosis
PS Disclosure; page 5; 42pp; English.
CC The sequences given in R53398-99 represent sense and antisense monocyte chemotactic protein-1 (MCP-1) respectively. These CC oligonucleotides may be labelled with a radionuclide and use CC therapeutically for the treatment of vascular restenosis.
CC Radiolabelled antisense MCP-1 compounds may be constructed using high CC energy alpha or beta emitting isotopes rather than the gamma CC emitters customarily used for diagnostic purposes. Antisense MCP-1 CC compounds inactivate MCP-1 or inhibit production of MCP-1 so that CC monocytes are not attracted to the area of vascular injury and CC proliferation of vascular cells is inhibited.
SQ Sequence 76 AA;

Query Match 100.0%; Score 44; DB 10; Length 76;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 50 eicadp 55
QY 1 EICADP 6

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RESULT 20
ID R87675 standard; protein; 76 AA.
AC R87675;
DE 21-FEB-1996 (first entry)
DE (28-Asp) MCP-1.
KW monocyte chemoattractant protein; MCP-1; mutant; restenosis; angioplasty.
OS Homo sapiens.
FH Key Location/Qualifiers
FT modified_site 28 Location/Qualifiers
FT modified_site /note="Tyr in the native sequence is replaced by Asp"
FT disulfide_bond 11..36
FT FT disulfide_bond 12..52
PN W09513295-A1.
PD 18-MAY-1995.
PF 07-NOV-1994; U12874.
PR 12-NOV-1993; US-152301.
PA (DAND ) DANA FARBER CANCER INST INC.
PI Rollins B; Zhang YJ;
DR WPI; 95-215051/28.
PT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are capable of inhibiting the monocyte chemo-attractant activity of PT endogenous MCP-1 and can be used to treat restenosis
PS Claim 3; Page 11; 22pp; English.
CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such CC that they inhibit the monocyte chemoattractant activity of endogenous CC MCP-1, provided that the derivative has not been modified by the CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations CC are: (1) substitution of 28 Tyr by aspartate; (2) substitution of amino CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino CC acids 2-8. The present sequence is a specifically claimed human MCP-1 CC derivative based on the parent protein disclosed in Rollins, Molecular CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC The peptides can be used to prevent restenosis, e.g. in patients CC undergoing coronary artery angioplasty.
SQ Sequence 76 AA;

Query Match 100.0%; Score 44; DB 14; Length 76;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 50 eicadp 55
QY 1 EICADP 6

RESULT 21
ID R87676 standard; protein; 76 AA.
AC R87676;
DE 21-FEB-1996 (first entry)
DE (24-Arg) MCP-1.
KW monocyte chemoattractant protein; MCP-1; mutant; restenosis; angioplasty.
OS Homo sapiens.
FH Key Location/Qualifiers
FT modified_site 24 Location/Qualifiers
FT modified_site /note="Arg in the native sequence is replaced by Phe"
FT disulfide_bond 11..36
FT FT disulfide_bond 12..52
PN W09513295-A1.
PD 18-MAY-1995.
PF 07-NOV-1994; U12874.
PR 12-NOV-1993; US-152301.
PA (DAND ) DANA FARBER CANCER INST INC.
PI Rollins B; Zhang YJ;
DR WPI; 95-215051/28.
PT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are capable of inhibiting the monocyte chemo-attractant activity of PT endogenous MCP-1 and can be used to treat restenosis
PS Claim 5; Page 11; 22pp; English.
CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such

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CC that they inhibit the monocyte chemoattractant activity of endogenous
 CC MCP-1, provided that the derivative has not been modified by the
 CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
 CC are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg
 CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
 CC acids 2-8. The present sequence is a specifically claimed human MCP-1
 CC derivative based on the parent protein disclosed in Rollins, Molecular
 CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
 CC The peptides can be used to prevent restenosis, e.g. in patients
 CC undergoing coronary artery angioplasty.
 SQ Sequence 76 AA;

Query Match 100.0%; Score 44; DB 14; Length 76;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 50 eicadp 55
 |||||
 QY 1 EICADP 6

RESULT 22
 ID W22672 standard; Protein; 77 AA.
 AC W22672:
 DT 19-MAR-1998 (first entry)
 DE Bac 2 chemokine betat10 or monocyte chemotactic protein 4 variant.
 CC Human; chemokine betat10; CK betat10; treatment; antagonist;
 CC solid tumour; infection; autoimmune disease; asthma; antibody;
 CC fibrotic disease; psoriasis; neurodegenerative disease;
 CC wound healing; haematopoiesis regulation; gene therapy;
 CC chromosome identification; monocyte chemotactic protein 4;
 CC leukemia; MCP-4; Bac 2 variant.
 OS Homo sapiens.
 PN WO9731098-A1.
 PD 28-AUG-1997.
 PF 23-FEB-1996; U02598.
 PR 23-FEB-1996; WO-U02598.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
 PI Parmelee D, White J;
 DR WPI: 97-435153/40.
 PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 PT protein 4 - useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis
 PS Example 11; Fig 5; 83pp; English.
 CC The present sequence is human chemokine betat10 (CK betat10) or
 CC monocyte chemotactic protein 4 (MCP-4) Bac 2 variant, which can be
 CC used to treat patients deficient in CK betat10, while a CK betat10
 CC antagonist can be used to reduce excessive levels of CK betat10. CK
 CC betat10 can be used to treat leukaemia, solid tumours, chronic or
 CC opportunistic infections, autoimmune diseases, asthma, fibrotic
 CC diseases, psoriasis and neurodegenerative diseases. It also
 CC promotes wound healing, regulates haematopoiesis and generates
 CC antibodies. Labelled CK betat10 can be used to identify its cognate
 CC receptor, while cells expressing the receptor can be used to screen
 CC compounds for (ant)agonist activity. The antagonist can be used to
 CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
 CC infectious diseases, allergies, prostaglandin dependent fever and
 CC bone marrow failure, silicosis, sarcoidosis, hyper-osteophilic
 CC syndrome, lung inflammation and atherosclerosis. CK betat10 cDNA can
 CC be used to isolate genes encoding similar peptides, in gene therapy
 CC and for chromosome identification.
 SQ Sequence 77 AA;

Query Match 100.0%; Score 44; DB 27; Length 77;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 51 eicadp 56
 |||||
 QY 1 EICADP 6

RESULT 23
 ID R86859 standard; Protein; 77 AA.
 AC R86859:
 DT 20-MAR-1996 (first entry)
 DE Mature MCP-1.
 CC Antisense; monocyte chemotactic protein-1; MCP-1;
 CC "C-C" family; chemoattractant cytokine; chemokine; stimulation;
 CC monocyte; chemotaxis; vascular smooth muscle cell; macrophage;
 CC proliferation; restenosis; balloon angioplasty.
 OS Homo sapiens.
 PN WO9519167-A1.
 PD 20-JUL-1995.
 PF 13-JAN-1995; U00605.
 PR 14-JAN-1994; US-182917.
 PA (MELC) MALLINCKRODT MEDICAL INC.
 PI Lyle LR, Thomas-Miller B;
 DR WPI: 95-263703/34.
 N-PSDB; T03528.
 PT New anti-sense oligo:nucleotide(s) and peptide(s) for inhibiting
 PT restenosis - are directed against C-C family cytokine(s) such as
 PT monocyte chemotactic protein, opt. radio-labelled for therapy or
 PT imaging
 PS Disclosure: Page 5; 50pp; English.
 CC This sequence represents the mature form of monocyte chemotactic
 CC protein-1 (MCP-1). MCP-1 is a member of the "C-C" family of
 CC chemoattractant cytokines or chemokines. It is a potent stimulator
 CC of monocyte chemotaxis and has an extremely high degree of specificity
 CC for this cell type. MCP-1 is produced by injured vascular smooth muscle
 CC cells and attracts the monocytes and macrophages which infiltrate the
 CC area, releasing growth factors and resulting in proliferation of vascular
 CC smooth muscle and restenosis. Nucleic acid molecules which are antisense
 CC to the MCP-1 mRNA may be used to inhibit translation of MCP-1 and so may
 CC be useful for inhibiting vascular restenosis, partic. following balloon
 CC angioplasty or a related process. The molecule may be radiolabelled to
 CC increase its therapeutic effect or for imaging areas of potential
 CC restenosis.
 SQ Sequence 77 AA;

Query Match 100.0%; Score 44; DB 15; Length 77;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 51 eicadp 56
 |||||
 QY 1 EICADP 6

RESULT 24
 ID W22674 standard; Protein; 79 AA.
 AC W22674:
 DT 19-MAR-1998 (first entry)
 DE Droll1/2 chemokine betat10 or monocyte chemotactic protein 4 variant.
 CC Human; chemokine betat10; CK betat10; treatment; antagonist;
 CC solid tumour; infection; autoimmune disease; asthma; antibody;
 CC fibrotic disease; psoriasis; neurodegenerative disease;
 CC wound healing; haematopoiesis regulation; gene therapy;
 CC chromosome identification; monocyte chemotactic protein 4;
 CC leukemia; MCP-4; Droll1/2 variant.
 OS Homo sapiens.
 PN WO9731098-A1.
 PD 28-AUG-1997.
 PF 23-FEB-1996; U02598.
 PR 23-FEB-1996; WO-U02598.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
 PI Parmelee D, White J;
 DR WPI: 97-435153/40.
 PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 PT protein 4 - useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis
 PS Example 11; Fig 5; 83pp; English.
 CC The present sequence is human chemokine betat10 (CK betat10) or
 CC monocyte chemotactic protein 4 (MCP-4) Droll1/2 variant, which can

CC be used to treat patients deficient in Ck beta10, while a Ck beta10
CC antagonist can be used to reduce excessive levels of Ck beta10. Ck
CC beta10 can be used to treat leukaemia, solid tumours, chronic or
CC opportunistic infections, autoimmune diseases, asthma, fibrotic
CC diseases, psoriasis and neurodegenerative diseases. It also
CC promotes wound healing, regulates haematopoiesis and generates
CC antibodies. Labelled Ck beta10 can be used to identify its cognate
CC receptor, while cells expressing the receptor can be used to screen
CC compounds for (ant)agonist activity. The antagonist can be used to
CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
CC infectious diseases, allergies, prostaglandin dependent fever and
CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
CC syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can
CC be used to isolate genes encoding similar peptides, in gene therapy
CC and for chromosome identification.

SQ Sequence 79 AA;

Query Match 100.0%; Score 44; DB 27; Length 79;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 53 eicadp 58

Qy 1 EICADP 6

RESULT 25

ID W22671 standard; Protein; 82 AA.

AC W22671;

DT 19-MAR-1998 (first entry)

DE Bac 1 chemokine beta10 or monocyte chemotactic protein 4 variant.

KW Human; chemokine beta10; Ck beta10; treatment; antagonist;

KW solid tumour; infection; autoimmune disease; asthma; antibody;

KW fibrotic disease; psoriasis; neurodegenerative disease;

KW wound healing; haematopoiesis regulation; gene therapy;

KW chromosome identification; monocyte chemotactic protein 4;

KW leukaemia; MCP-4; Bac 1 variant.

OS Homo sapiens.

PN W09731098-A1.

PD 28-AUG-1997.

PF 23-FEB-1996; U02598.

PR 23-FEB-1996; WO-002598.

PA (HUMA-) HUMAN GENOME SCI INC.

PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,

PI Parmelee D, White J;

DR WPI: 97-435153/40.

PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic

PT protein 4 - useful to treat tumours, autoimmune disease, infection,

PT asthma and fibrosis

PS Example 11; Fig 5; 83pp; English.

CC The present sequence is human chemokine beta10 (Ck beta10) or

CC monocyte chemotactic protein 4 (MCP-4) Bac 1 variant, which can be

CC used to treat patients deficient in Ck beta10, while a Ck beta10

CC antagonist can be used to reduce excessive levels of Ck beta10. Ck

CC beta10 can be used to treat leukaemia, solid tumours, chronic or

CC opportunistic infections, autoimmune diseases, asthma, fibrotic

CC diseases, psoriasis and neurodegenerative diseases. It also

CC promotes wound healing, regulates haematopoiesis and generates

CC antibodies. Labelled Ck beta10 can be used to identify its cognate

CC receptor, while cells expressing the receptor can be used to screen

CC compounds for (ant)agonist activity. The antagonist can be used to

CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or

CC infectious diseases, allergies, prostaglandin dependent fever and

CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic

CC syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can

CC be used to isolate genes encoding similar peptides, in gene therapy

CC and for chromosome identification.

SQ Sequence 82 AA;

Query Match 100.0%; Score 44; DB 27; Length 82;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 56 eicadp 61

Qy 1 EICADP 6

RESULT 26

ID W17665 standard; peptide; 82 AA.

AC W17665;

DT 16-DEC-1997 (first entry)

DE Stem cell mobilising chemokine Ckbeta-10.

KW Haematopoietic cell; parasitic infection; colony stimulating factor;

KW haematoregulator; immune response; bacterial infection; transplant;

KW wound healing; bone marrow; immunosuppression; regeneration;

KW neoplastic disease; viral disease; gene therapy; cytotoxic drug.

OS Synthetic.

PN W09715594-A1.

PD 01-MAY-1997.

PF 23-OCT-1996; U16959.

PR 24-OCT-1995; US-006051.

PA (SMIK) SMITHKLINE BEECHAM CORP.

PI Kreider BL, Li H, Pelus L, White JR;

PI WPI: 97-258956/23.

PT Ten new chemokine(s) able to mobilise stem cells - used where

PT increased levels of haematopoietic cells are required, e.g. to

PT increase resistance to infection

PS Claim 7; Page 11-12; 24pp; English.

CC The present sequence represents a chemokine, Ckbeta-10, which is capable

CC of mobilising stem cells. The chemokine can be used therapeutically to

CC improve stem cell mobilisation, optionally together with a colony

CC stimulating factor or other haematoregulatory agent. It can be used

CC wherever an increased level of haematopoietic cells is needed, e.g. to

CC increase the immune response to chronic infection (particularly

CC bacterial or parasitic), to promote wound healing, in (transplant)

CC patients with reduced bone marrow function as a result of

CC immunosuppressive treatment or disease, and to provide more rapid

CC regeneration of bone marrow after treatment for neoplastic or viral

CC diseases. The induced stem cells may be harvested for subsequent return

CC to the patient, optionally after they have been genetically manipulated

CC to deliver a selected gene product (gene therapy). The cells may be

CC co-administered with a cytotoxic drug.

SQ Sequence 82 AA;

Query Match 100.0%; Score 44; DB 24; Length 82;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 56 eicadp 61

Qy 1 EICADP 6

RESULT 27

ID W40811 standard; Protein; 93 AA.

AC W40811;

DT 01-APR-1998 (first entry)

DE Macrophage-derived chemokine.

KW Macrophage-derived chemokine; MDC; antibody; binding modulator; therapy;

KW arthritis; inflammatory disorder; cancer; Crohn s disease;

KW atherosclerosis.

OS Homo sapiens.

FT Key

FT Peptide

FT Protein

FT US5688927-A.

PN 18-NOV-1997.

PF 07-JUN-1995; 480449.

PR 07-JUN-1995; US-480449.

PA (ICOS-) ICOS CORP.

PI Godiska R, Gray PW;

DR WPI: 98-008038/01.
N-PSDB: T99233.

PT Antibodies specific for macrophage-derived chemokine - useful for
 PT purifying or detecting the chemokine or modulating its activity
 PS Claim 3: Column 21-24; 22pp; English.
 CC This sequence represents the macrophage-derived chemokine (MDC). This
 CC protein is used to produce the antibodies of the invention. The
 CC antibodies are useful for purifying MDC polypeptides, for detecting
 CC endogenous MDC in a host, and for modulating binding of MDC to its
 CC receptors. The DNA encoding this sequence can be used for identifying and
 CC isolating non-human MDC homologues. The MDC protein is potentially useful
 CC for treating inflammatory disorders, cancer, etc. Antagonists of MDC can
 CC be used for treating Crohn's disease, arthritis, atherosclerosis etc.
 SQ Sequence 93 AA;

Query Match 100.0%; Score 44; DB 27; Length 93;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 74 eicadp 79
 1 EICADP 6

RESULT 28
 ID W07604 standard; Protein: 93 AA.
 AC W07604:
 DT 03-SEP-1997 (first entry)
 DE Cytokine beta-13 stimulates migration/activation of immune cells.
 KW Chemokine beta-13; Ck-beta-13; C-C; Cys-Cys subfamily; immune cell;
 KW defence; activation; eosinophil; monocyte; macrophage; T lymphocyte;
 KW T cell; basophil; gene therapy; tumour; cancer; neoplasia; infection;
 KW Kaposi's sarcoma; cirrhosis; osteoarthritis; pulmonary fibrosis;
 KW leukaemia; autoimmune disease; psoriasis; inflammation; allergy;
 KW rheumatoid arthritis; siliocosis.
 OS Homo sapiens.
 FH Key Location/Qualifiers
 FT misc_difference 45
 FT /note= "given as encoded by CAC codon in T44026"
 PN W09639521-A1.
 PD 12-DEC-1996.
 PF 06-JUN-1995; U07294.
 PR 06-JUN-1995; WO-U07294.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PA (SMRK) SMITHKLINE BEECHAM CORP.
 PI Li H, Seidel G;
 DR WPI: 97-043143/04.
 DR N-PSDB: T44026.
 PT Human chemokine beta-13 - useful for treating solid tumours,
 PT leukaemia, infections, autoimmune disease, fibrotic disorders,
 PT psoriasis, etc.
 PS Claim 10; Page 46; 58pp; English.
 CC W07604 shows human chemokine beta-13 (Ck-beta-13), a member of the
 CC C-C (Cys-Cys) branch of intercrine chemokines. Ck-beta-13 is useful for
 CC treating patients lacking chemokine beta-13 by gene therapy. Ck-beta-13
 CC stimulates the invasion and activation of host defence cells making it
 CC useful for treating solid tumours, e.g. Kaposi's sarcoma, and for
 CC enhancing resistance to acute and chronic infections, e.g. mycobacterial
 CC infections. The chemokine induces chemotactic migration of monocytes,
 CC neutrophils, eosinophils, T lymphocytes, basophils and fibroblasts to
 CC sites where they are needed. Eosinophils may be attracted to the site
 CC of a parasitic infection to kill parasite larvae. Ck-beta-13 also
 CC recruits debris-clearing and connective tissue promoting inflammatory
 CC cells, and is therefore used to stimulate wound healing, prevent
 CC scarring and treat liver cirrhosis, osteoarthritis and pulmonary
 CC fibrosis. Ck-beta-13 may also be used for treating leukaemia. T-cell
 CC mediated autoimmune diseases, psoriasis, to regulate haematopoiesis and
 CC to inhibit angiogenesis. Ck-beta-13 antagonists inhibit activity of the
 CC chemokine which is useful for treating certain autoimmune diseases,
 CC atherosclerosis, chronic inflammatory and infective diseases, allergic
 CC reactions, rheumatoid arthritis, siliocosis and bone marrow failure.
 SQ Sequence 93 AA;

Query Match 100.0%; Score 44; DB 23; Length 93;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;

Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Db 74 eicadp 79
 1 EICADP 6

RESULT 29
 ID W20058 standard; Protein: 93 AA.
 AC W20058:
 DT 11-SEP-1997 (first entry)
 DE Macrophage derived chemokine for treating inflammation.
 KW MDC; macrophage derived chemokine; C-C; Cys-Cys; Crohn's disease;
 KW rheumatoid arthritis; chemotaxis; fibroblast proliferation;
 KW wound healing; angiogenesis; inflammation.
 OS Homo sapiens.
 FH Key Location/Qualifiers
 FT peptide 1..24
 FT /label= sig_peptide
 FT protein 25..93
 FT /label= mat_protein
 PN W09640923-A1.
 PD 19-DEC-1996.
 PF 07-JUN-1996; U10114.
 PR 07-JUN-1995; US-479620.
 PR 16-NOV-1995; US-558658.
 PA (ICOS-) ICOS CORP.
 PI Godiska R, Gray PW;
 DR WPI: 97-052324/05.
 DR N-PSDB: T76529.
 PT Macrophage derived chemokine (MDC) and analogues - used in the
 PT treatment of inflammatory diseases, MDC antibodies used to treat
 PT Crohn's disease, rheumatoid arthritis, etc.
 PS Claim 1; Page 73; 106pp; English.
 CC A new macrophage derived chemokine, MDC, a member of the C-C
 CC (Cys-Cys) subfamily of cytokines has been isolated. MDC and it's
 CC analogues may be used in the treatment of inflammatory diseases
 CC especially diseases characterised by monocyte chemotaxis towards a
 CC site of inflammation. MDC and it's analogues also induce fibroblast
 CC proliferation having a positive effect in wound healing and
 CC angiogenesis. They may prove to be clinically important in the
 CC treatment of tumours, by directly or indirectly inhibiting tumour
 CC formation. Antibodies directed against MDC and its analogues may be
 CC used in the treatment of Crohn's disease, rheumatoid arthritis and
 CC atherosclerosis. Probes and/or primers for the identification of MDC
 CC encoding sequences can be derived from MDC encoding sequences.
 SQ Sequence 93 AA;

Query Match 100.0%; Score 44; DB 23; Length 93;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 74 eicadp 79
 1 EICADP 6

RESULT 30
 ID W30191 standard; Protein: 98 AA.
 AC W30191:
 DT 21-MAY-1998 (first entry)
 DE Monocyte chemotactic protein 5.
 KW Monocyte chemotactic protein 5; MCP-5; human; macrophage;
 KW chemokine; inhibitor; antiinflammatory; atherosclerosis;
 KW Crohn's disease; arthritis; angiogenesis; tumour; metastasis;
 KW therapy; diagnosis; medical imaging.
 OS Homo sapiens.
 FH Key Location/Qualifiers
 FT Peptide 1..23
 FT /label= sig_peptide
 FT protein 24..98
 FT /label= Mat_protein
 FT /note= "(Claim 4)"

PN W09735982-A2.
 PD 02-OCT-1997.
 PF 26-MAR-1997; U04898.
 PR 27-MAR-1996; US-622851.
 PA (ICOS-) ICOS CORP.
 PI Godiska R, Gray PW;
 DR WPI: 97-469645/45.
 DR N-PSDB: T90880.
 PT Polynucleotide encoding monocyte chemotactic protein-5 - useful in
 treatment of e.g. inflammation, atherosclerosis, angiogenesis and
 tumours
 PS Claim 1; Page 36-37; 47pp; English.
 CC This polypeptide comprises human macrophage-derived
 CC monocyte chemotactic protein-5 (MCP-5), a novel C-C chemokine.
 CC Its amino acid sequence was deduced from a cDNA clone (see
 CC T90880 and T90883) isolated from a human macrophage cDNA
 CC library. A claimed method for producing MCP-5 comprises
 CC culturing a host cell that is stably transformed or transfected
 CC with MCP-5 polynucleotide. Also claimed is a hybridoma that
 CC produces a monoclonal antibody (Mab) that is specifically
 CC reactive with the mature MCP-5. MCP-5 (or its analogues and
 CC fragments) is used to enhance the immune response in cases of
 CC wounds or infections, while its inhibitors (e.g. the Mab) are
 CC useful as anti-inflammatory in cases of e.g. arthritis and
 CC Crohn's disease, also for treatment of atherosclerosis,
 CC angiogenesis and tumour growth (or metastasis). The MCP-5
 CC inhibitors can possibly also be used to reduce the damaging effects
 CC of chemo- and radio-therapy on myeloid progenitor cells, and to
 CC inhibit replication of HIV. MCP-5 can also be used to identify
 CC its cognate receptor, while MCP-5 peptides (or the analogues or
 CC receptors) are used to modulate MCP-5 activity and to identify
 CC MCP-5 agonists and antagonists.
 SQ Sequence 98 AA:

Query Match 100.0%; Score 44; DB 28; Length 98;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 72 eicadp 77
 |||||
 Oy 1 EICADP 6

RESULT 31
 ID W22670 standard; Protein; 98 AA.
 AC W22670:
 DT 19-MAR-1998 (first entry)
 DE Human chemokine beta10 or monocyte chemotactic protein 4.
 KW Human; chemokine beta10; Ck beta10; treatment; antagonist;
 KW solid tumour; infection; autoimmune disease; asthma; antibody;
 KW fibrotic disease; psoriasis; neurodegenerative disease;
 KW wound healing; haematopoiesis regulation; gene therapy;
 KW Chromosome identification; monocyte chemotactic protein 4;
 KW Leukaemia; MCP-4.
 OS Homo sapiens.
 FH Key
 FH Peptide 1..23 Location/Qualifiers
 FT /label= sig-peptide
 FT 24..98
 FT Peptide /label= mat_peptide
 PN W09731098-A1.
 PD 28-AUG-1997.
 PF 23-FEB-1996; U02598.
 PR 23-FEB-1996; WO-U02598.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
 PI Parmelee D, White J;
 DR WPI: 97-435153/40.
 DR N-PSDB: T85029.
 PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 PT protein 4 - useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis
 PS Claim 1; Fig 2; 83pp; English.

CC The present sequence is human chemokine beta10 (Ck beta10) or
 CC monocyte chemotactic protein 4 (MCP-4), which can be used to treat
 CC patients deficient in Ck beta10, while a Ck beta10 antagonist can
 CC be used to reduce excessive levels of Ck beta10. Ck beta10 can be
 CC used to treat leukaemia, solid tumours, chronic or opportunistic
 CC infections, autoimmune diseases, asthma, fibrotic diseases,
 CC psoriasis and neurodegenerative diseases. It also promotes wound
 CC healing, regulates haematopoiesis and generates antibodies.
 CC Labelling Ck beta10 can be used to identify its cognate receptor.
 CC while cells expressing the receptor can be used to screen compounds
 CC for (ant)agonist activity. The antagonist can be used to treat
 CC rheumatoid arthritis, autoimmune, chronic inflammatory or
 CC infectious diseases, allergies, prostaglandin dependent fever and
 CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
 CC syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can
 CC be used to isolate genes encoding similar peptides, in gene therapy
 CC and for chromosome identification.
 SQ Sequence 98 AA:

Query Match 100.0%; Score 44; DB 27; Length 98;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 72 eicadp 77
 |||||
 Oy 1 EICADP 6

RESULT 32
 ID R93087 standard; Protein; 98 AA.
 AC R93087:
 DT 27-AUG-1996 (first entry)
 DE Human chemokine beta-10.
 KW Chemokine beta-10; chemokine beta-4; Ck beta-10; Ck beta-4;
 KW cytokine; leukaemia; tumour; cancer; autoimmune disease; psoriasis;
 KW asthma; allergy; wound healing; diagnosis; therapy.
 OS Homo sapiens.
 FH Key
 FH Peptide 1..23 Location/Qualifiers
 FT /label= sig-peptide
 FT 25..98
 FT Protein /label= Mat_protein
 PN W09605856-A1.
 PD 29-FEB-1996.
 PF 23-AUG-1994; U09484.
 PR 23-AUG-1994; WO-U09484.
 PR 08-SEP-1994; ZA-U06936.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams MD, Li H;
 DR WPI: 96-151145/15.
 DR N-PSDB: T17050
 PT New chemokine Ck(beta)-4 and -10 genes and polypeptide(s) - useful
 PT to treat, e.g. leukaemia, solid tumours and auto-immune diseases
 PS Claim 19; Fig 2; 53pp; English.
 CC A novel human chemokine, Ck beta-10 (R93087), was identified as
 CC the product of a cDNA clone (T17050) isolated from a 9-wk early
 CC human tissue cDNA library. The protein is structurally related to
 CC the chemokine family. Recombinant Ck beta-10 can be obd. by
 CC incorporating the cDNA into a vector and expression of the protein
 CC in e.g. E. coli, COS or Sf9 cells. Ck beta-10 can be used to treat
 CC solid tumours, chronic infections, psoriasis, asthma and allergy,
 CC to regulate haematopoiesis, promote wound healing, and to inhibit
 CC angiogenesis. It can also be used to inhibit bone marrow stem cell
 CC colony form. during chemotherapy.
 SQ Sequence 98 AA:

Query Match 100.0%; Score 44; DB 17; Length 98;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 72 eicadp 77
 |||||
 Oy 1 EICADP 6

```
RESULT 33
ID R70800 standard; Protein; 99 AA.
AC R70800;
DT 29-AUG-1995 (first entry)
DE Chemoattractant protein MCP-1.
KW MCP-1; chemoattractant; heparanase; heparin; heparan sulfate;
  arthritis; restenosis; cancer; wound healing.
OS Homo sapiens.
PN WO9504158-A.
PD 09-FEB-1995.
PF 26-JUL-1994; U08207.
PR 29-JUL-1993; US-099866.
PR 13-OCT-1993; US-136117.
PA (UPJO ) UPJOHN CO.
PI Hoogwerf AJ, Ledbetter SR;
DR WPI: 95-082239/11.
DR N-PSDB: Q85370.
PT Screening for cpds. with anti-heparanase activity - by detecting
PT inhibition of heparin or heparan sulphate degradation,
PT potentially useful for treating arthritis, restenosis, cancer.
PS Claim 13; Page 49; 60pp; English.
CC Purified heparanases, prepared under reducing conditions and
CC activated with transglutaminase, are given in R70786-804. Most
CC are prepared by reverse transcription of mRNA from activated human
CC leukocytes, then cloning of the cDNA into pVL1392 baculovirus
CC vector, and expression in Sf9 cells in the presence of reduced
CC glutathione and dithiothreitol.
SQ Sequence 99 AA;

Query Match 100.0%; Score 44; DB 13; Length 99;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 73 eicadp 78
QY 1 EICADP 6

RESULT 34
ID R28663 standard; Protein; 99 AA.
AC R28663;
DT 24-MAR-1993 (first entry)
DE MCF.
KW Plasmid; monocyte chemotactic factor; MCF; translation;
  termination; terminator; initiation; ribosome binding site;
  RBS; promoter; tryptophan; repressor.
OS Synthetic.
FH Key Location/Qualifiers
FT peptide 1..23
FT /label= sig_peptide
FT Protein 24..99
FT /label= mat_protein
PN WO9219737-A.
PD 12-NOV-1992.
PE 27-APR-1992; J00550.
PR 09-MAY-1991; JP-135950.
PA (DAIN ) DAINIPPON PHARM CO LTD.
PI Fukui T, Matsuo N, Yamada M, Yamagishi J;
DR WPI: 92-398864/48.
DR N-PSDB: Q30748.
PT Prod. of polypeptide(s) having monocyte chemotactic activity -
PT using expression plasmids with E. coli elements and specific
PT E. coli strains
PS Disclosure: Page 43-44; 56pp; English.
CC An expression plasmid, PHMC076 for producing MCF(76) consisting
CC of 76 amino acids was constructed. DNA encoding MCF(76) was
CC prepd. using a recombinant plasmid PHMC07.
SQ Sequence 99 AA;
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```
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 73 eicadp 78
QY 1 EICADP 6

RESULT 35
ID R70801 standard; Protein; 99 AA.
AC R70801;
DT 29-AUG-1995 (first entry)
DE Chemoattractant protein MCP-3.
KW MCP-3; chemoattractant; heparanase; heparin; heparan sulfate;
  arthritis; restenosis; cancer; wound healing.
OS Homo sapiens.
PN WO9504158-A.
PD 09-FEB-1995.
PF 26-JUL-1994; U08207.
PR 29-JUL-1993; US-099866.
PR 13-OCT-1993; US-136117.
PA (UPJO ) UPJOHN CO.
PI Hoogwerf AJ, Ledbetter SR;
DR WPI: 95-082239/11.
DR N-PSDB: Q85371.
PT Screening for cpds. with anti-heparanase activity - by detecting
PT inhibition of heparin or heparan sulphate degradation,
PT potentially useful for treating arthritis, restenosis, cancer.
PS Claim 13; Page 50; 60pp; English.
CC Purified heparanases, prepared under reducing conditions and
CC activated with transglutaminase, are given in R70786-801. Most
CC are prepared by reverse transcription of mRNA from activated human
CC leukocytes, then cloning of the cDNA into pVL1392 baculovirus
CC vector, and expression in Sf9 cells in the presence of reduced
CC glutathione and dithiothreitol.
SQ Sequence 99 AA;

Query Match 100.0%; Score 44; DB 13; Length 99;
Best Local Similarity 100.0%; Pred. No. 8.87e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 73 eicadp 78
QY 1 EICADP 6

RESULT 36
ID P95387 standard; protein; 99 AA.
AC P95387;
DT 25-JUL-1989 (first entry)
DE Human monocyte chemo-attractant peptide-1.
KW Human monocyte chemo-attractant peptide; inflammatory disease; neoplasms.
OS Homo sapiens.
FH Key Location/Qualifiers
FT protein 24..99
FT /Product=MCP-1
PN US7330446-A.
PD 25-JUL-1989;
PE 30-MAR-1989; 330446.
PR 30-MAR-1989; US-330446.
PA (USSH) US Dept. Health and Human.
PI Yoshimura T, Robinson EA, Appella E, Leonard EJ;
DR WPI: 89-300683/41.
DR N-PSDB: N91337.
PT Human derived monocyte chemo-attractant peptide prods. - obtd. from human
PT glioma cell line U-105MG or peripheral blood mononuclear leukocytes.
PS Disclosure: fig 2; 66pp; English.
CC This is a human-derived monocyte chemo-attractant peptide (MCP-1) sequence
CC MCP-1 exhibits optimal chemotactic activity at a concn. of 1nM and has a
CC mol. mass of c.a. 8,400 D. MCP-1 can be used for treating infection eg
CC inflammatory disease, or for the control of neoplasms by accumulation of
CC monocytes at the site of the infection. The corresp. DNA is obt'd. by
CC chemical synthesis, by screening reverse transcripts of mRNA from
CC purified blood leukocytes or cell cultures of eg U-373 MG or KG-5.
```

SQ Sequence 99 AA:

Query Match 100.0%; Score 44; DB 2; Length 99;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

DB 73 eicadp 78
 |||||
 1 EICADP 6

RESULT 37

ID R73914 standard; protein: 99 AA.
 AC R73914.
 DT 05-DEC-1995 (first entry)
 DE Human monocyte chemoattractant factor hMCP-1.
 KW Human monocyte chemoattractant factor; hMCP-1; chemokine; vaccine;
 KW meningitis related homologous antigenic sequence; MRHAS; RV-1;
 KW immunosassay; diagnosis; treatment; prophylactic; bacterial;
 KW viral.
 OS Homo sapiens.
 PN WO9509232-A.
 PD 06-APR-1995.
 PF 28-SEP-1994; CA0516.
 PR 28-SEP-1993; US-127499.
 PA (SHAR/) SHARMA L R.
 PI (VALS/) VAN ALSTYNE D.
 DR WPI; 95-147431/19.
 PT New peptide(s) and corresp. antibodies for the treatment of
 PT meningitis - the peptide(s) corresp. to homologous antigenic
 PT sites on bacterial and viral agents and on chemokine(s), used for
 PT detecting and preventing meningitis
 PS Claim 47; Fig 8/10; 98pp; English.
 CC R73914 is the chemokine Human monocyte chemoattractant factor hMCP-1.
 CC It contains the meningitis related antigenic sequences (MRHAS) claimed
 CC from R73895 and R73907, which are recognised by a monoclonal antibody
 CC from the hybridoma Rubella virus (RV)-1. The claimed MRHAS peptides
 CC may be used in immunoassays to diagnose the presence of bacterial
 CC and/or viral meningitis agents in a sample, or in prophylactic and
 CC therapeutic meningitis treatments. The peptides may also be used as
 CC vaccines against meningitis.
 CC NB: Identified by matching corresponding MRHAS peptides.
 SQ Sequence 99 AA:

Query Match 100.0%; Score 44; DB 14; Length 99;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

DB 73 eicadp 78
 |||||
 1 EICADP 6

RESULT 38

ID R24353 standard; protein: 109 AA.
 AC R24353.
 DT 26-NOV-1992 (first entry)
 DE Cytokine encoded by clone NC28.
 KW Cytokine; plasmid pSEL1; HTLV-1; human T-lymphocyte virus;
 KW mouse; alpha-globin; E. coli cloning vector; ss.
 OS Synthetic.
 FH Key
 FH peptide
 FT 1..33 Location/Qualifiers
 FT /label= signal
 FT /note= "includes 3 potential initiation sites"
 FT protein
 FT 34..109 /label= cytokine
 FT modified_site 39..41 /label= N-glycosylation
 FT /note= "putative"
 FT
 PD EP-488900-A.
 PD 03-JUN-1992.

PF 29-NOV-1991; 403243.
 PR 29-NOV-1990; FR-014961.
 PA (ERAP) ELF SANOFI.
 PA (SNFI) SANOFI SA.
 PI Caput D, Ferrara P, Miloux B, Minty A, Vita N;
 DR WPI: 92-185765/23.
 DR N-PSDB; Q25259.
 DE New monocyte chemo:attractive cytokine - for treatment of cancer
 PT and parasitic infections, e.g. leishmaniasis, leprosy or Chagas
 PT disease
 PS Claim 1; Fig 2; 45pp; French.
 CC This protein is encoded by the NC28 clone isolated from
 CC peripheral blood mononuclear cells stimulated with phorbol
 CC 2-myristate-3-acetate (see Q25259). The mature protein is claimed.
 CC It can be N-terminally deleted such that the mature protein starts
 CC at Val 3 or at Lys 19. The leader sequence is active in animal
 CC cells. See Q25258-Q25262.
 SQ Sequence 109 AA:

Query Match 100.0%; Score 44; DB 2; Length 109;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

DB 83 eicadp 88
 |||||
 1 EICADP 6

RESULT 39

ID W19992 standard; protein: 700 AA.
 AC W19992.
 DT 27-AUG-1997 (first entry)
 DE Human CANP used to identify inhibitors of interleukin-1 activity.
 KW IL-1; interleukin; receptor; ligand; screening assay; inhibitor;
 KW IL-1 mediated response; inflammation; inflammatory; antibody;
 KW intracellular domain; CANP; calcium activated neutral protease.
 OS Homo sapiens.
 PN WO9640907-A1.
 PD 19-DEC-1996.
 PF 06-MAY-1996; U06363.
 PR 07-JUN-1995; US-487942.
 PA (GENY) GENETICS INST INC.
 PI Graham J, Lin L;
 DR WPI; 97-052315/05.
 PT Interleukin-1 receptor intracellular ligand proteins and related DNA
 PT - used to identify inhibitors of the proteins for treatment of
 PT inflammation
 PS Claim 14; Page 36-38; 54pp; English.
 CC W19992 represents human calcium activated neutral protease (CANP).
 CC This protein was found to have an area of high homology with an
 CC interleukin-1 receptor (IL-1-R) intracellular ligand (encoded by cDNA
 CC clone 14w; see T71218) and thus will display some of the same
 CC properties of this protein. IL-1-R intracellular ligand proteins are
 CC used to screen for agents (e.g. antibodies) that are capable of
 CC inhibiting or blocking the binding of an IL-1-R intracellular ligand
 CC to the intracellular domain of IL-1-R, i.e. inhibitors of IL-1
 CC activity. Such agents can be used to treat inflammatory conditions.
 SQ Sequence 700 AA:

Query Match 100.0%; Score 44; DB 23; Length 700;
 Best Local Similarity 100.0%; Pred. No. 8.87e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

DB 80 eicadp 85
 |||||
 1 EICADP 6

RESULT 40

ID W44721 standard; protein: 82 AA.
 AC W44721.
 DT 05-JUN-1998 (first entry)
 DE Amino acid sequence of the secreted protein encoded by clone AM262_11.

KW Secreted protein; antibody; immunoassay reagent;
 KM nutritional supplement; therapeutic activity; eotaxin precursor.
 OS Homo sapiens.
 FH Key Location/Qualifiers
 FT MISC_difference 15
 PN MO9746683-A2. /note= "not specified"
 PD 11-DEC-1997.
 PF 06-JUN-1997; U09878.
 PR 07-JUN-1996; US-659224.
 PA (GEM) GENETICS INST INC.
 PI Bowman M, Evans C, Jacobs K, Lavalie ER, McCly JM,
 PI Merberg D, Racie LA, Spaulding V, Treacy M,
 DR WPI: 98-042191/04.
 DR N-PSDB: V05729.
 PT Nucleic acids encoding secreted proteins from clones within ANCC
 PT 98076 - useful as immuno-modulators, anti-proliferative agents,
 PT regulators of cell differentiation and tissue growth, etc
 PS Claim 26; Page 68; 99pp; English.
 CC The present sequence represents the amino acid sequence of a
 CC secreted protein encoded by clone AM262_11. The clone was isolated
 CC from a human fetal kidney cDNA library using probe V05756. AM262_11
 CC has some identity with the human eotaxin precursor gene and protein.
 CC As such, the AM262_11 protein may share some activity. The nucleic
 CC acid can be used for expression of recombinant proteins, as tissue,
 CC molecular weight or chromosome markers, indicators of genetic disorders
 CC and sources of probes and primers. They can also be used to generate
 CC anti-protein or anti-DNA antibodies and as components of interaction
 CC trap assays etc. The protein is useful for raising antibodies, as
 CC immunoassay reagents and as nutritional supplements. The protein may
 CC possibly have any of a great variety of therapeutic activities.
 SQ Sequence 82 AA;

Query Match 97.7%; Score 43; DB 29; Length 82;
 Best Local Similarity 83.3%; Pred. No. 1.14e+02;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
 Db 71 dicadp 76
 QY 1 EICADP 6

RESULT 41
 ID W14990 standard; Protein: 97 AA.
 AC W14990.
 DT 01-DEC-1997 (first entry)
 DE Human eosinocyte CC type chemokine eotaxin.
 KM Human; eosinocyte; CC type; chemokine; eotaxin; calcium; skin;
 KM small intestine; agonist; screening; antagonist; inflammation;
 KM antibody; diagnosis; assay; disorder; asthma; allergy; atopic.
 OS Homo sapiens.
 PN WO9712914-A1.
 PD 10-APR-1997.
 PF 01-OCT-1996; J02851.
 PR 28-FEB-1996; JP-041965.
 PR 05-OCT-1995; JP-259067.
 PA (SHIO) SHIONOGI & CO LTD.
 PI Harada S, Kitaura M, Nakajima T;
 DR WPI: 97-226168/20.
 DR N-PSDB: T62944.
 PT Human CC chemokine (eotaxin) active on eosinocytes - useful for
 PT screening for eotaxin (antagonist(s)), e.g. for treating.
 PT inflammation
 PS Claim 2; Pages 27-28; 45pp; Japanese.
 CC The present sequence is the human eosinocyte, CC type
 CC chemokine, eotaxin, which increases calcium flux in human
 CC eosinocytes and is a human analogue of guinea pig eotaxin. The
 CC eotaxin was derived from human small intestine, and is a specific
 CC agonist for human CC type chemokine receptor 3. It may be used to
 CC screen potential agonists and antagonists, which may be useful as
 CC anti-inflammatory. An anti-eotaxin antibody may be used in
 CC diagnostic assays for eotaxin, which is implicated in inflammatory
 CC disorders, e.g. asthma, other allergies and atopic skin

CC Inflammation.
 SQ Sequence 97 AA;

Query Match 97.7%; Score 43; DB 24; Length 97;
 Best Local Similarity 83.3%; Pred. No. 1.14e+02;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
 Db 71 dicadp 76
 QY 1 EICADP 6

RESULT 42
 ID W10099 standard; Protein: 97 AA.
 AC W10099;
 DT 30-SEP-1997 (first entry)
 DE Human eotaxin.
 KM Human; eotaxin; eosinophil; chemoattractant; stimulation;
 KM accumulation; attraction; chemotaxis; diagnosis; prevention;
 KM treatment; disease; inflammation; allergy; asthma; rhinitis;
 KM hypersensitivity; lung; pneumonia; Loeffler's syndrome;
 KM interstitial; ILD; idiopathic pulmonary fibrosis;
 KM rheumatoid arthritis; systemic; lupus erythematosus; SLE;
 KM ankylosing spondylitis; sclerosis; Sjogren's; polymyositis;
 KM dermatomyositis; bowel; anaphylaxis; drug; penicillin;
 KM cephalosporin; insect sting; Crohn's; ulcerative colitis;
 KM spondyloarthropathy; scleroderma; psoriasis; dermatosis;
 KM dermatitis; eczema; atopic; urticaria; necrotizing; cutaneous;
 KM vasculitis; myositis; fasciitis; multiple sclerosis;
 KM myasthenia gravis; juvenile onset diabetes; glomerulonephritis;
 KM autoimmune; thyroiditis; Bechet's; graft; rejection;
 KM transplantation; allograft; graft versus host; cancer;
 KM leukocyte infiltration; reperfusion injury; atherosclerosis;
 KM haematologic malignancy; septic; endotoxic; shock;
 KM polymyositis; dermatomyositis; immunosuppression; immunodeficiency;
 KM AIDS; radiation therapy; chemotherapy; autoimmune; corticosteroid;
 infection.
 OS Homo sapiens.
 PN WO9700960-A1.
 PD 09-JAN-1997.
 PF 21-JUN-1996; U10723.
 PR 23-JUN-1995; US-494093.
 PA (LEUK-) LEUKOSTITE INC.
 PI Mackay C, Newman W, Ponath PD, Qin S, Ringler DJ;
 DR WPI: 97-087387/08.
 DR N-PSDB: T58777.
 PT New isolated human eotaxin gene - used to develop prods. for the
 PT diagnosis and treatment of e.g. inflammation, allergies, auto-immune
 PT disease. Infections and tumours
 PS Claim 3; Pages 95-96; 130pp; English.
 CC The present sequence is human eotaxin (hE), an eosinophil
 CC specific chemoattractant capable of stimulating eosinophil
 CC accumulation and/or attracting eosinophils (including chemotaxis).
 CC It can be used to develop products for the diagnosis, prevention or
 CC treatment of hE associated diseases or conditions. The products can
 CC be used to treat inflammatory or allergic diseases and conditions,
 CC including respiratory allergic diseases (e.g. asthma, allergic
 CC rhinitis, hypersensitivity lung diseases or pneumonitis,
 CC eosinophilic pneumonias such as Loeffler's syndrome and chronic
 CC eosinophilic pneumonia, interstitial lung diseases (ILD) such as
 CC idiopathic pulmonary fibrosis or ILD associated with rheumatoid
 CC arthritis, systemic lupus erythematosus (SLE), ankylosing
 CC spondylitis, systemic sclerosis, Sjogren's syndrome, polymyositis
 CC or dermatomyositis), systemic anaphylaxis or hypersensitivity
 CC responses, drug allergies (e.g. to penicillin and cephalosporins),
 CC insect sting allergies, inflammatory bowel diseases (e.g. Crohn's
 CC disease and ulcerative colitis), spondyloarthropathies,
 CC scleroderma, psoriasis and inflammatory dermatoses (e.g.
 CC dermatitis, eczema, atopic dermatitis, allergic contact dermatitis,
 CC urticaria and necrotizing, cutaneous and hypersensitivity
 CC vasculitis), eosinophilic myositis and fasciitis, multiple
 CC sclerosis, SLE, myasthenia gravis, juvenile onset diabetes,
 CC glomerulonephritis, autoimmune thyroiditis, Bechet's disease, graft

CC rejection (e.g. in transplantation) including allograft rejection or
 CC graft versus host disease and cancers with leukocyte infiltration
 CC of the skin or organs. The products can also be used to treat other
 CC diseases or conditions requiring the inhibition of undesirable
 CC inflammatory responses, including reperfusion injury.
 CC atherosclerosis, certain haematologic malignancies, cytokine
 CC induced toxicity (e.g. septic or endotoxic shock), polymyositis,
 CC dermatomyositis, immunosuppression (e.g. in individuals with
 CC immunodeficiency syndromes such as AIDS, undergoing radiation
 CC therapy, chemotherapy, therapy for autoimmune disease or other drug
 CC therapy, such as corticosteroid therapy, which causes
 CC immunosuppression), immunosuppression due to (e.g. congenital)
 CC deficiency (e.g. in eotaxin) or infectious diseases such as parasitic
 CC diseases.
 CC Degenerate primers based on the guinea pig eotaxin amino acid
 CC sequence were used for the reverse transcriptase polymerase chain
 CC reaction (RT-PCR) amplification of RNA isolated from inflamed
 CC eosinophilic lung tissue obtained from Balb/c mice sensitised to
 CC ovalbumin. The amplification product was used as a probe to screen
 CC a human genomic library in vector EMBL3 SP6/T7 to obtain the hE
 CC gene.
 SQ Sequence 97 AA;

Query Match 97.7%; Score 43; DB 23; Length 97;
 Best Local Similarity 83.3%; Pred. No. 1.14e+02;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 71 dicadp 76
 QY 1 EICADP 6

RESULT 43
 ID W00667 standard; Protein: 97 AA.
 AC W00667:
 DT 02-MAY-1997 (first entry)
 DE Pancreas-expressed chemokine-1.
 KW Pancreas-derived chemokine; PANEC-1; PANEC-2; diagnosis;
 OS Inflammation; disease; cancer.
 OS Homo sapiens.
 PN W09625497-A1.
 PD 22-AUG-1996.
 PF 16-FEB-1996; U02225.
 PR 17-FEB-1995; US-390740.
 PA (INCY-) INCYTE PHARM INC.
 PI Bandman O, Coleman R, Wilde CG;
 DR WPI: 96-393398/39.
 DR N-PSDB: T33527.
 PT Nucleotide and protein sequences for human PANEC-1 and PANEC-2 -
 PT useful in diagnosis and therapy of pancreatic diseases
 PS Claim 8: Page 28-29; 43pp; English.
 CC The sequences given in W00667-68 represent pancreas-derived chemokines,
 CC PANEC-1 and PANEC-2. These chemokines are highly expressed and
 CC specifically expressed in the pancreas and may therefore be used in
 CC diagnostic assays based on chemokine production in cases of
 CC inflammation or disease affecting the pancreas. These assays allow
 CC the early and accurate diagnosis of pancreatic disorders, and can
 CC differentiate between invasive diseases and genetic syndromes.
 SQ Sequence 97 AA;

Query Match 97.7%; Score 43; DB 21; Length 97;
 Best Local Similarity 83.3%; Pred. No. 1.14e+02;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 71 dicadp 76
 QY 1 EICADP 6

RESULT 44
 ID R38940 standard; Protein: 69 AA.
 AC R38940;
 DT 23-NOV-1993 (first entry)

DE LD78 Phe28>Glu, Glu48>Glu.
 KW SCI; stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KW macrophage inflammatory protein; multimer; tumour therapy;
 KW psoriasis; hyperproliferation.
 OS Homo sapiens.
 PN W09313206-A.
 PD 08-JUL-1993.
 PF 23-DEC-1992; G02390.
 PR 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BRBT-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 DR Hunter MG;
 WPI: 93-227322/28.
 PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 PT alpha - unable to form stable multimer higher than dodecamer,
 PT providing better tissue penetration
 PS Example 1: Page 48-50; 294pp; English.
 CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-
 CC 1alpha, having mutations to prevent or reduce multimer formation
 CC beyond certain stages (e.g. dodecamer), have improved solution
 CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Glu, Lys44>Ser, Arg17>Glu (with
 CC Glu18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
 CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 69 AA;

Query Match 95.5%; Score 42; DB 7; Length 69;
 Best Local Similarity 83.3%; Pred. No. 1.46e+02;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 48 ewcadp 53
 QY 1 EICADP 6

RESULT 45
 ID R38926 standard; Protein: 69 AA.
 AC R38926;
 DT 23-NOV-1993 (first entry)
 DE LD78 Glu48>Glu.
 KW SCI; stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KW macrophage inflammatory protein; multimer; tumour therapy;
 KW psoriasis; hyperproliferation.
 OS Homo sapiens.
 PN W09313206-A.
 PD 08-JUL-1993.
 PF 23-DEC-1992; G02390.
 PR 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BRBT-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 DR Hunter MG;
 WPI: 93-227322/28.
 PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 PT alpha - unable to form stable multimer higher than dodecamer,
 PT providing better tissue penetration
 PS Example 1: Page 48-50; 294pp; English.
 CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-
 CC 1alpha, having mutations to prevent or reduce multimer formation
 CC beyond certain stages (e.g. dodecamer), have improved solution
 CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Glu, Lys44>Ser, Arg17>Glu (with
 CC Glu18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
 CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 69 AA;

Query Match 95.5%; Score 42; DB 7; Length 69;
 Best Local Similarity 83.3%; Pred. No. 1.46e+02;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 48 ewcadp 53
 1:|||||
 QY 1 EICADP 6

RESULT 46
 ID R70804 standard; Protein: 72 AA.
 AC R70804;
 DT 29-AUG-1995 (first entry)
 DE Chemotractant MCP-2; heparanase; heparin; heparan sulfate;
 KW Chemotractant; MCP-2; heparanase; heparin; heparan sulfate;
 KW arthritis; restenosis; cancer; wound healing.
 OS Homo sapiens.
 PN W09504158-A.
 PD 09-FEB-1995.
 PF 26-JUL-1994; U08207.
 PR 29-JUL-1993; US-099866.
 PR 13-OCT-1993; US-136117.
 PA (UPJO) UPJOHN CO.
 PI Hoogwerf AJ, Ledbetter SR;
 DR WPI: 95-082239/11.
 PT Screening for cpds. with anti-heparanase activity - by detecting
 PT inhibition of heparin or heparan sulphate degradation,
 PT potentially useful for treating arthritis, restenosis, cancer.
 PS Claim 13: Page 53; 60PP; English.
 CC Purified heparanases, prepared under reducing conditions and
 CC activated with transglutaminase, are given in R70766-804. Most
 CC are prepared by reverse transcription of mRNA from activated human
 CC leukocytes, then cloning of the cDNA into pVL1392 baculovirus
 CC vector, and expression of the cDNA into Sf9 cells in the presence of reduced
 CC glutathione and dithiothreitol.
 SQ Sequence 72 AA;

Query Match 95.5%; Score 42; DB 13; Length 72;
 Best Local Similarity 83.3%; Pred. No. 1.46e+02;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 46 ewcadp 51
 1:|||||
 QY 1 EICADP 6

RESULT 47
 ID W42072 standard; Protein: 109 AA.
 AC W42072;
 DT 09-JUN-1998 (first entry)
 DE Human MCP protein.
 KW Human monocyte chemotactic protein; MCP; Incyte clone; allergy;
 KW macrophage; diagnostic assay; body fluid; lung; biopsy;
 KW autoimmune disease; AIDS; asthma; rheumatoid arthritis; NIDDM;
 KW breast cancer; bladder.
 OS Homo sapiens.
 PN W09802459-A1.
 PD 22-JAN-1998.
 PF 15-JUL-1997; U12349.
 PR 15-JUL-1996; US-683655.
 PA (INCY-) INCYTE PHARM INC.
 PI Au-Young J, Coleman R, Hillman JL;
 DR WPI: 98-110529/10.
 N-PSDB: V09218.
 PT New human monocyte chemotactic protein - has homology to CC
 PT chemokine(s) useful for identifying agent for treating auto-immune
 PT diseases or allergic responses
 PS Claim 1: Pages 38-39; 33PP; English.
 CC The is a human monocyte chemotactic protein sequence. Its cDNA was
 CC first identified in Incyte clone 965517 from a breast cDNA library.
 CC Antisense nucleotides can be used to control human MCP expression
 CC especially where it may lead to inappropriate monocyte or macrophage
 CC activity causing damage associated with allergic responses to organs

CC such as the lungs. Antisense nucleotides and MCP cDNA may be used
 CC in diagnostic assays of body fluids or biopsied tissues to detect
 CC expression levels of MCP. MCP cDNA may also be useful for
 CC treatment of disorders such as asthma, rheumatoid arthritis, NIDDM
 CC or cancer of the breast or bladder. Human MCP protein can be used to
 CC identify agonists, antagonists or inhibitors to modulate the activity of
 CC MCP in allergic responses or autoimmune diseases such as AIDS.
 SQ Sequence 109 AA;

Query Match 95.5%; Score 42; DB 29; Length 109;
 Best Local Similarity 83.3%; Pred. No. 1.46e+02;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 83 ewcadp 88
 1:|||||
 QY 1 EICADP 6

RESULT 48
 ID W26655 standard; Protein: 109 AA.
 AC W26655;
 DT 16-FEB-1998 (first entry)
 DE Human beta-chemokine H1305 (MCP-2).
 KW H1305; MCP-2; chemokine; human; chemotractant; chemotaxis;
 KW virus infection; HIV; therapy; wound healing; tumour; antibody.
 OS Homo sapiens.
 PN W09725427-A1.
 PD 17-JUL-1997.
 PF 10-JAN-1997; U00379.
 PR 12-JAN-1996; US-586395.
 PA (GEMT) GENETICS INST INC.
 PI Lavallie ER, McCoy JM, Racie LA;
 DR WPI: 97-372866/34.
 N-PSDB: T91023.
 DT New human beta-chemokine, H1305 and corresponding DNA - used in the
 PT treatment of viral infection, e.g. HIV, and in wound healing
 PS Claim 1; Page 12-13; 21PP; English.
 CC This protein comprises human beta-chemokine H1305, also known as
 CC MCP-2. Its sequence was deduced from a claimed cDNA clone (see
 CC T91023) isolated from a human peripheral blood mononuclear cell
 CC cDNA library. Also claimed are: (1) a host cell, preferably
 CC mammalian, transformed with a H1305 polynucleotide operably linked
 CC to an expression control sequence; (2) a recombinantly produced
 CC H1305 protein; and (3) a composition comprising an antibody which
 CC specifically reacts with the H1305 protein. The H1305 protein
 CC may be used in a composition for the treatment of a mammalian
 CC subject (claimed). It is thought to have chemokine activities and
 CC may therefore have an effect on chemotaxis or migration of blood
 CC cells. It may be useful for inhibiting viral replication,
 CC including replication of HIV, and may also be used for treatment of
 CC wounds and to raise monoclonal and polyclonal antibodies which
 CC specifically react with H1305. Such antibodies may be used for
 CC therapy of certain tumours as they are capable of blocking the
 CC ligand binding of the H1305 protein or may promote clearance of
 CC the protein from the patient.
 SQ Sequence 109 AA;

Query Match 95.5%; Score 42; DB 26; Length 109;
 Best Local Similarity 83.3%; Pred. No. 1.46e+02;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 83 ewcadp 88
 1:|||||
 QY 1 EICADP 6

RESULT 49
 ID W23643 standard; Protein: 89 AA.
 AC W23643;
 DT 08-JAN-1998 (first entry)
 DE Human dendritic cell tacin.
 KW Human dendritic cell tacin; DC tacin; C-C chemokine family; dendrite;
 KW haematopoietic cell; rheumatoid arthritis; psoriasis; atopic dermatitis;

KW asthma: antagonist; agonist; gene therapy; transgenic animal.
 OS Homo sapiens.
 FH Key Location/Qualifiers
 FT Peptide 1..20
 FT /label= "signal-peptide"
 FT /note= "predicted"
 FT Protein 21..89
 FT /label= "DC-tactin"
 FT /note= "Mature protein includes 4 conserved
 cysteine residues at positions 30, 31, 54
 and 70"
 FT
 FT
 PN MO9729125-A1.
 PD 14-AUG-1997.
 PF 06-FEB-1997; U01247.
 PR 09-FEB-1996; US-599233.
 PA (SCHE) SCHERING CORP.
 PA (UYNI -) UNIV NIMMGEN.
 PI Adema GJ, Figgdor C, McClanahan TK;
 DR WPI: 97-415297/38.
 DR N-PSDB: T78167.
 PT Primate dendritic cell tactin, a chemo-attractant for haematopoietic
 PT cells - useful for diagnosis and treatment of e.g. auto-immune
 PT disease, infections, cancer etc., and in vaccines
 PS Claim 2; Page 53: 62pp: English.
 CC This is the sequence of human dendritic cell (DC) tactin, a
 CC new member of the C-C chemokine family. DC tactin is a chemokine which
 CC attracts or activates haematopoietic cells and possibly also neural
 CC cells. Antagonists of the chemokine, such as antibodies, are used to
 CC regulate and/or prevent autoimmunity, tissue rejection and undesired
 CC response to antigens (e.g. in cases of rheumatoid arthritis, psoriasis,
 CC atopic dermatitis, asthma etc.), while agonists (such as DC tactin
 CC itself) are used to regulate and/or treat infectious disease, response
 CC or cancer, by attracting haematopoietic cells to dendritic cells, also
 CC as vaccine adjuvant for immunocompromised subjects. The cDNA encoding
 CC DC tactin is useful in gene therapy and generation of transgenic
 CC animals.
 SQ Sequence 89 AA:
 Query Match 93.2%; Score 41; DB 25; Length 89;
 Best Local Similarity 83.3%; Pred. No. 1.88e+02;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
 Db 68 qicadp 73
 QY 1 EICADP 6
 RESULT 50
 ID R76127 standard; Protein; 89 AA.
 AC R76127;
 DT 02-DEC-1995 (first entry)
 DE Macrophage inflammatory protein-4.
 KW Macrophage inflammatory protein-4; therapeutic; diagnostic.
 OS Homo sapiens.
 FH Key Location/Qualifiers
 FT Peptide 1..19
 FT /note= "signal peptide"
 FT
 PN MO9517092-A.
 PD 29-JUN-1995.
 PF 28-JUN-1994; U07256.
 PR 22-DEC-1993; US-173409.
 PR 08-MAR-1994; US-208339.
 PA (HUMA -) HUMAN GENOME SCI INC.
 PI Adams MD, Li H, Rosen CA, Ruben S;
 DR WPI: 95-240404/31.
 DR N-PSDB: Q94093.
 PT cDNA encoding human macrophage inflammatory proteins -3, -4 and
 PT -1 gamma - used in immuno-regulation including inflammatory
 PT activity, haematopoiesis, treatment of psoriasis or solid tumours.
 PS Claim 12: Figure 2: 60pp; English.
 CC Human macrophage inflammatory protein-4 (MIP-4) is used in
 CC therapeutic and diagnostic applications for detecting and
 CC treating infections, cancer, inflammation, myelopietic

CC dysfunction and autoimmune diseases. Antagonists/inhibitors
 CC of MIP-4 are used to treat diseases involving overexpression
 CC of MIP-4, including silicosis, arteriosclerosis, autoimmune and
 CC chronic inflammatory and infective diseases, aplastic anaemia,
 CC etc.
 SQ Sequence 89 AA:
 Query Match 93.2%; Score 41; DB 14; Length 89;
 Best Local Similarity 83.3%; Pred. No. 1.88e+02;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
 Db 68 qicadp 73
 QY 1 EICADP 6
 Search completed: Thu Apr 1 14:04:49 1999
 Job time : 24 secs.

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Msrch_dp protein - protein database search, using Smith-Waterman algorithm

Run on: Thu Apr 1 07:29:48 1999; Msrch time 3.02 Seconds

Tabular output not generated. 74.507 Million cell updates/sec

Title: >US-08-927-939-8

Description: (1-6) from US08927939.pep

Perfect Score: 44

Sequence: 1 EICADP 6

Scoring table: PAM 150

Gap 15

Searched: 116738 segs, 37463448 residues

Post-processing: Minimum Match 0%

Listing first 100 summaries

Database: plr58

1:plr1 2:plr2 3:plr3 4:plr4

Statistics: Mean 18.638; Variance 24.588; scale 0.758

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result	Score	Query	Match	Length	ID	Description	Pred. No.
No.		%					
1	44	100.0	99	2	A60299	monocyte chemoattract	6.98e+00
2	44	100.0	109	2	A54678	monocyte chemoattract	6.98e+00
3	44	100.0	148	2	S07723	immediate-early serum	6.98e+00
4	44	100.0	700	1	C1HMH2	calpain (EC 3.4.22.17	6.98e+00
5	44	100.0	700	2	S38361	calpain (EC 3.4.22.17	6.98e+00
6	43	97.7	97	2	JC4912	eotaxin - human	1.12e+01
7	43	97.7	97	2	JC2136	monocyte chemoattract	1.12e+01
8	42	95.5	64	2	F69231	hypothetical protein	1.77e+01
9	42	95.5	99	2	JC5295	monocyte chemoattract	1.77e+01
10	42	95.5	99	2	JC2417	monocyte chemoattract	1.77e+01
11	42	95.5	120	2	A16847	monocyte chemoattract	1.77e+01
12	42	95.5	148	2	A30209	PDGF-inducible JE g1y	1.77e+01
13	41	93.2	92	2	I52322	macrophage inflammatory	2.80e+01
14	41	93.2	906	2	G69531	alanyl-tRNA synthetas	2.80e+01
15	40	90.9	283	2	JC5579	chymotrypsin-like ser	4.39e+01
16	40	90.9	360	2	A49188	electron transfer fla	4.39e+01
17	40	90.9	552	2	A70709	probable p17a protei	4.39e+01
18	39	88.6	50	2	C60407	monocyte adherence-in	6.83e+01
19	39	88.6	92	2	A30574	macrophage inflamma	6.83e+01
20	39	88.6	92	1	A31767	macrophage inflamma	6.83e+01
21	39	88.6	93	2	B35673	LD78-beta protein pre	6.83e+01
22	39	88.6	99	2	A39296	monocyte chemoattract	6.83e+01
23	39	88.6	99	2	JC2336	monocyte chemoattract	6.83e+01

24	39	88.6	116	2	I48555	gene C10 protein - mo	6.83e+01
25	39	88.6	296	2	S76512	hypothetical protein	6.83e+01
26	39	88.6	429	2	A29044	endoglycanase A precu	6.83e+01
27	39	88.6	448	2	A27631	cellulase (EC 3.2.1.4	6.83e+01
28	38	86.4	49	2	A35971	mast cell growth fact	1.06e+02
29	38	86.4	51	2	B35971	mast cell growth fact	1.06e+02
30	38	86.4	92	2	C30552	macrophage inflamma	1.06e+02
31	38	86.4	96	2	I48099	eotaxin precursor - g	1.06e+02
32	38	86.4	96	2	JC2478	eotaxin - rat	1.06e+02
33	38	86.4	114	1	ETMSL	lymphocytin precursor	1.06e+02
34	38	86.4	125	2	I46857	monocyte chemoattract	1.06e+02
35	38	86.4	138	2	B69365	hypothetical protein	1.06e+02
36	38	86.4	201	2	S35981	hypothetical protein	1.06e+02
37	38	86.4	245	2	A37934	mast cell growth fact	1.06e+02
38	38	86.4	273	2	A43751	mast cell growth fact	1.06e+02
39	38	86.4	273	2	S65801	mast cell growth fact	1.06e+02
40	38	86.4	344	2	G70036	spore coat polysaccha	1.06e+02
41	38	86.4	448	2	A55476	protein kinase (EC 2.	1.06e+02
42	38	86.4	546	1	B24707	NADH dehydrogenase (u	1.06e+02
43	38	86.4	898	2	A65092	alanine--tRNA ligase	1.06e+02
44	38	86.4	1446	1	A45344	immediate-early prote	1.06e+02
45	38	86.4	1460	1	EDBEIF	immediate-early prote	1.06e+02
46	38	86.4	1497	2	S72250	sex-determining trans	1.06e+02
47	38	86.4	1820	2	A55494	latent transforming g	1.06e+02
48	38	86.4	3461	2	S58870	reelin - mouse	1.06e+02
49	37	84.1	114	2	A55010	neutrophil-activating	1.62e+02
50	37	84.1	119	2	S53460	hypothetical protein	1.62e+02
51	37	84.1	120	2	JE0177	lymphocyte and monoc	1.62e+02
52	37	84.1	620	1	WZBEC1	gene 28 protein - equ	1.62e+02
53	37	84.1	688	2	S57131	hypothetical protein	1.62e+02
54	37	84.1	810	2	S57196	calpain (EC 3.4.22.17	1.62e+02
55	37	84.1	821	1	C1HMH3	calpain (EC 3.4.22.17	1.62e+02
56	37	84.1	821	1	B34488	calpain (EC 3.4.22.17	1.62e+02
57	37	84.1	841	2	A43254	protein-tyrosine-phos	1.62e+02
58	37	84.1	4427	2	PN0637	polyketide synthase (	1.62e+02
59	36	81.8	37	2	B70566	probable ribosomal pr	2.46e+02
60	36	81.8	83	2	C41378	hypothetical protein	2.46e+02
61	36	81.8	91	1	A46539	monocyte chemoattract	2.46e+02
62	36	81.8	92	1	A28815	monocyte chemoattract	2.46e+02
63	36	81.8	92	2	I46730	immune activation gen	2.46e+02
64	36	81.8	114	1	ETHUL	lymphocytin precursor	2.46e+02
65	36	81.8	119	2	PN0067	T-cell receptor beta	2.46e+02
66	36	81.8	136	2	A65083	hypothetical protein	2.46e+02
67	36	81.8	145	2	I39564	OR6 - Alcaligenes eu	2.46e+02
68	36	81.8	174	2	C69533	NAD(P)H-flavin oxidor	2.46e+02
69	36	81.8	213	2	B42985	3-oxoadipate CoA-try	2.46e+02
70	36	81.8	218	2	S53354	calflagin Tb-24 - Tr	2.46e+02
71	36	81.8	229	2	S53355	calflagin Tb-1.7 - Tr	2.46e+02
72	36	81.8	233	2	B24796	glyceraldhyde-3-phos	2.46e+02
73	36	81.8	245	2	S76632	hypothetical protein	2.46e+02
74	36	81.8	297	1	PRSMAG	proteinase A (EC 3.4.	2.46e+02
75	36	81.8	299	1	PRSMAG	proteinase B (EC 3.4.	2.46e+02
76	36	81.8	336	2	A24430	glyceraldhyde-3-phos	2.46e+02
77	36	81.8	369	2	S56638	mitogen-activated pro	2.46e+02
78	36	81.8	379	2	B70777	hypothetical protein	2.46e+02
79	36	81.8	395	2	A40270	cyclin E - human	2.46e+02
80	36	81.8	396	2	J01285	glyceraldhyde-3-phos	2.46e+02
81	36	81.8	397	2	S45496	isp7 protein - fssiso	2.46e+02
82	36	81.8	407	2	S53353	calflagin Tb-44A - Tr	2.46e+02
83	36	81.8	424	2	C70651	hypothetical protein	2.46e+02
84	36	81.8	434	2	C71418	hypothetical protein	2.46e+02
85	36	81.8	448	2	S74380	biotin carboxylase ac	2.46e+02
86	36	81.8	515	2	S59811	vacuolar segregation	2.46e+02
87	36	81.8	573	2	C71312	probable pyrophosphat	2.46e+02
88	36	81.8	610	1	BVECR0	DNA helicase reco - E	2.46e+02
89	36	81.8	640	2	A30452	uromodulin precursor	2.46e+02
90	36	81.8	761	2	B64506	DNA topoisomerase (EC	2.46e+02
91	36	81.8	854	2	C71533	probable c1pc protein	2.46e+02
92	36	81.8	902	2	S26002	gene cxi1 intron 1 pr	2.46e+02
93	36	81.8	1041	2	PQ0442	polyprotein - barley	2.46e+02
94	36	81.8	1146	2	B35962	protein-tyrosine kina	2.46e+02
95	36	81.8	1182	2	A35962	protein-tyrosine kina	2.46e+02
96	36	81.8	1202	2	PQ0440	polyprotein - barley	2.46e+02

97 36 81.8 1470 2 S45323 genome polypeptide 1 2.46e+02
 98 36 81.8 1790 1 MAFB1 laminin beta-1 chain 2.46e+02
 99 36 81.8 2410 1 J01948 genome polypeptide 1 2.46e+02
 100 36 81.8 2412 1 J01537 genome polypeptide 1 2.46e+02

RESULT 1 ALIGNMENTS

ENTRY 1 A60299 #type complete
 #title monocyte chemoattractant protein 1 precursor - human
 ALTERNATE_NAMES GDF-1; glioma-derived monocyte chemotactic factor 1; MCAF;
 MCP-1; monocyte chemotactic factor 1; monocyte secretory
 protein; tumor-derived chemotactic factor
 #formal_name Homo sapiens #common_name man
 20-Feb-1993 #sequence_revision 20-Feb-1993 #text_change
 20-Mar-1998

CONTAINS
 ORGANISM
 DATE

ACCESSIONS A35474; A33476; S03339; I51841; A60299; A32300; A32396;
 A34561; I57488; J01096

REFERENCE
 #authors A33474
 #journal Shyy, Y.J.; Li, Y.S.; Kolattukudy, P.E.
 #title Biochem. Biophys. Res. Commun. (1990) 169:346-351
 #title Structure of human monocyte chemotactic protein gene and its
 regulation by TPA.
 #cross-references M01D:90290466

#accession A35474
 #molecule_type DNA
 #residues 1-99 #label SHY

REFERENCE
 #cross-references GB:M37719; NID:g187447; PID:g487124

#authors A33476
 #journal Rollins, B.J.; Stier, P.; Ernst, T.; Wong, G.G.
 #title Mol. Cell. Biol. (1989) 9:4687-4693
 #title The human homolog of the JE gene encodes a monocyte secretory
 protein.
 #cross-references M01D:90097880

#accession A33476
 #molecule_type mRNA
 #residues 1-99 #label ROL
 #cross-references GB:M30816; GB:M31625; GB:M31626; NID:g188701;
 PID:g386961

REFERENCE
 #authors S03339
 #journal Yoshimura, T.; Yuhki, N.; Moore, S.K.; Appella, E.; Lerman,
 M.I.; Leonard, E.J.
 #title FEBS Lett. (1989) 244:487-493
 #title Human monocyte chemoattractant protein-1 (MCP-1). Full-length
 cDNA cloning, expression in mitogen-stimulated blood
 mononuclear leukocytes, and sequence similarity to mouse
 competence gene JE.
 #cross-references M01D:89153605

#accession S03339
 #status not compared with conceptual translation

#molecule_type mRNA
 #residues 1-99 #label YOS

REFERENCE
 #cross-references GB:X14768; NID:g34513; PID:g34514
 #experimental_source glioma cell line U-105MG

REFERENCE
 #authors I51841
 #journal Yoshimura, T.; Leonard, E.J.
 #title Adv. Exp. Med. Biol. (1991) 305:47-56
 #title Human monocyte chemoattractant protein-1 (MCP-1).
 #cross-references M01D:92095166

#accession I51841
 #status Preliminary; translated from GB/EMBL/DBJ

#molecule_type mRNA
 #residues 1-99 #label Y02

REFERENCE
 #cross-references GB:S71513; NID:g240867; PID:g240868

REFERENCE
 #authors A60299
 #journal Botlazzi, B.; Colotta, F.; Sica, A.; Noll, N.; Mantovani,
 A.
 #title Int. J. Cancer (1990) 45:795-797
 #title A chemoattractant expressed in human sarcoma cells
 (tumor-derived chemotactic factor, TDCF) is identical to
 monocyte chemoattractant protein-1/monocyte chemotactic and

#accession A60299 activating factor (MCP-1/MCAF).
 #status not compared with conceptual translation
 #molecule_type mRNA
 #residues 1-99 #label BOT

REFERENCE
 #authors A32300
 #journal Futurani, Y.; Nomura, H.; Notake, M.; Oyama, Y.; Fukui, T.;
 Yamada, M.; Larsen, C.G.; Oppenheim, J.U.; Matsushima, K.
 #title Biochem. Biophys. Res. Commun. (1989) 159:249-255
 #title Cloning and sequencing of the cDNA for human monocyte
 chemotactic and activating factor (MCAF).
 #cross-references M01D:89165862

#accession A32300
 #status not compared with conceptual translation

#molecule_type mRNA
 #residues 1-99 #label FUR

REFERENCE
 #cross-references GB:M24545; NID:g187434; PID:g307163

REFERENCE
 #authors A32396
 #journal Robinson, E.A.; Yoshimura, T.; Leonard, E.J.; Tanaka, S.;
 Griffin, P.R.; Shabanowitz, J.; Hunt, D.F.; Appella, E.
 #title Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1850-1854
 #title Complete amino acid sequence of a human monocyte
 chemoattractant, a putative mediator of cellular immune
 reactions.
 #cross-references M01D:89184525

#accession A32396
 #molecule_type protein
 #residues 'X', 25-99 #label ROB

REFERENCE
 #authors A34561
 #journal Decock, B.; Conings, R.; Lenaerts, J.P.; Billiau, A.; Van
 Damme, J.
 #title Biochem. Biophys. Res. Commun. (1990) 167:904-909
 #title Identification of the monocyte chemotactic protein from human
 osteosarcoma cells and monocytes: detection of a novel
 N-terminally processed form.
 #cross-references M01D:90211336

#accession A34561
 #molecule_type protein
 #residues 29-33, 'XX', 36-52; 82-92 #label DEC

REFERENCE
 #authors I57488
 #journal Li, Y.S.; Shyy, Y.J.; Wright, J.G.; Valente, A.J.; Cornhill,
 J.F.; Kolattukudy, P.E.
 #title Mol. Cell. Biochem. (1993) 126:61-68
 #title The expression of monocyte chemotactic protein (MCP-1) in
 human vascular endothelium in vitro and in vivo.
 #cross-references M01D:94150478

#accession I57488
 #status translated from GB/EMBL/DBJ

#molecule_type mRNA
 #residues 1-99 #label LIT

REFERENCE
 #cross-references GB:S69738; NID:g545464; PID:g545465

REFERENCE
 #authors J01096
 #journal Ye, Q.N.; Su, G.F.; Yuan, Y.; Huang, C.F.
 #title Chinese J. Microbiol. Immunol. (1994) 14:29-32
 #title The PCR, cloning and sequencing of human monocyte
 chemoattractant protein-1 (MCP-1) gene.
 #accession J01096

#molecule_type mRNA
 #residues 24-28, 'Q', 30-99 #label YEQ

GENETICS
 #gene GDB:SCYA2
 #cross-references GDB:125279; OMIM:158105

CLASSIFICATION
 #map_position 17q11.2-17q12
 #superfamily macrophage inflammatory protein
 #keywords cytokine; glycoprotein; inflammation; pyroglutamic acid

FEATURES
 1-23
 24-99
 29-99
 24
 #domain signal sequence #status predicted #label SIG
 #product monocyte chemoattractant protein 1 #status
 experimental #label MAT
 #product monocyte chemoattractant protein 1, short form
 #status experimental #label MAT2
 #modified site pyrrolidone carboxylic acid (Gln) (in
 mature form) #status experimental

```

37      #binding-site carbohydrate (asn) (covalent) #status
SUMMARY      #length 99 #molecular-weight 11025 #checksum 7984
Query Match      100.0%; Score 44; DB 2; Length 99;
Best Local Similarity 100.0%; Pred. No. 6.98e+00;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db      73 EICADP 78
Qy      1 EICADP 6

RESULT 2
ENTRY  A54678      #type complete
TITLE  monocyte chemotactic protein 3 precursor - human
ALTERNATE_NAMES  monocyte chemoattractant protein MCP-3
ORGANISM  #formal_name Homo sapiens #common_name man
DATE  28-Oct-1994 #sequence_revision 28-Oct-1994 #text_change
ACCESSIONS  A54678; JCI1478; S32222
REFERENCE  A54678
#authors  Opdenakker, G.; Froyen, G.; Fiten, P.; Proost, P.; Van Damme, J.;
#journal  Speleman, F.; Laureys, G.; Van Damme, J.
#title  Genomics (1994) 21:403-408
#journal  The human MCP-3 gene (SCTA7): cloning, sequence analysis, and
#title  assignment to the C-C chemokine gene cluster on chromosome
#accession  17q11.2-q12.
#molecule_type  DNA
#residues  A54678
#cross-references  G8:X72309
REFERENCE  JCI1478
#authors  Opdenakker, G.; Froyen, G.; Fiten, P.; Proost, P.; Van Damme, J.
#journal  Biochem. Biophys. Res. Commun. (1993) 191:535-542
#title  Human monocyte chemotactic protein-3 (MCP-3): Molecular
#accession  cloning of the cDNA and comparison with other chemokines.
#molecule_type  mRNA
#residues  JCI1478
#cross-references  1-109 #label OP2
REFERENCE  S32222
#authors  Minny, A.; Chalton, P.; Guillemot, J.C.; Kaghad, M.; Llaunay,
#journal  P.; Magazin, M.; Miloux, B.; Minny, C.; Ramond, P.; Vita,
#title  N.; Luperker, J.; Shire, D.; Ferrara, P.; Caput, D.
#accession  Submitted to the EMBL Data Library, March 1993
#description  Molecular cloning of MCP-3: a human monocyte-derived monocyte
#accession  chemoattractant protein.
#molecule_type  mRNA
#residues  S32222
#cross-references  EMBL:X71087; NID:9288396; PID:9288397
COMMENT  This protein induces proteinase secretion and chemotaxis by
#GENETICS  macrophages and monocytes.
#gene  GDB:SCYA7, SCYA6; MCP-3
#cross-references  GDB:138473; OMIM:158106
#map_position  17q11-17q12
#introns  36/1; 75/2
CLASSIFICATION  #superfamily macrophage inflammatory protein
KEYWORDS  cytokine; glycoprotein; inflammation
FEATURE  1-33      #domain signal sequence #status predicted #label SIG\
#product monocyte chemotactic protein 3 #status
#accession  predicted #label MAT\
#binding-site carbohydrate (asn) (covalent) #status
#predicted
39      #length 109 #molecular-weight 12356 #checksum 1535
SUMMARY
Query Match      100.0%; Score 44; DB 2; Length 109;
Best Local Similarity 100.0%; Pred. No. 6.98e+00;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db      83 EICADP 88
Qy      1 EICADP 6

RESULT 3
ENTRY  S07723      #type complete
TITLE  immediate-early serum-responsive protein JE - rat
ALTERNATE_NAMES  monocyte chemoattractant protein-1
ORGANISM  #formal_name Rattus norvegicus #common_name Norway rat
DATE  29-Jan-1993 #sequence_revision 29-Jan-1993 #text_change
ACCESSIONS  S07723; JN0128
REFERENCE  S07723
#authors  Timmers, H.T.M.; Pronk, G.J.; Bos, J.L.; van der Eb, A.J.
#journal  Nucleic Acids Res. (1990) 18:23-34
#title  Analysis of the rat JE gene promoter identifies an AP-1
#binding site essential for basal expression but not for TPA
#induction.
#cross-references  M01D:90174947
#accession  S07723
#molecule_type  DNA
#residues  1-148 #label TIM
#cross-references  EMBL:X17053; NID:955530; PID:955531
REFERENCE  JN0128
#authors  Yoshimura, T.; Takeya, M.; Takahashi, K.
#journal  Biochem. Biophys. Res. Commun. (1991) 174:504-509
#title  Molecular cloning of rat monocyte chemoattractant protein-1
#accession  (MCP-1) and its expression in rat spleen cells and tumor
#cross-references  M01D:91128376
#accession  JN0128
#molecule_type  mRNA
#residues  1-148 #label YOS
#cross-references  G8:M57441; NID:9205333; PID:9205334
#experimental_source  spleen cells
#note  The authors translated the codon GAA for residue 62 as
Lys and GCT for residue 63 as Leu

GENETICS  26/1; 65/2
CLASSIFICATION  #superfamily macrophage inflammatory protein
FEATURE  1-23      #domain signal sequence #status predicted #label SIG\
#product immediate-early serum-responsive protein JE
#accession  #status predicted #label MAT
#length 148 #molecular-weight 16460 #checksum 4876
SUMMARY
Query Match      100.0%; Score 44; DB 2; Length 148;
Best Local Similarity 100.0%; Pred. No. 6.98e+00;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db      73 EICADP 78
Qy      1 EICADP 6

RESULT 4
ENTRY  C1H0H2      #type complete
TITLE  calpain (EC 3.4.22.17) large chain 2 - human
ALTERNATE_NAMES  calpain chain b-2; calpain II catalytic chain; high-calcium
#requiring, calcium activated neutral proteinase (CANP)
#large subunit; m-calpain (millimolar) heavy chain
ORGANISM  #formal_name Homo sapiens #common_name man
DATE  21-Nov-1993 #sequence_revision 09-Aug-1997 #text_change
ACCESSIONS  S10590; A31218; A33529
REFERENCE  S10589
#authors  Sorimachi, H.; Ohmi, S.; Emori, Y.; Kawasaki, H.; Saigo,
#journal  T.C.; Ohno, S.; Minami, Y.; Suzuki, K.
#title  Biol. Chem. Hoppe-Seyler (1990) 371[Suppl.]171-176
#accession  A novel member of the calcium-dependent cysteine protease
#family.
#cross-references  M01D:90380278

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#accession S10590
#molecule_type mRNA
#residues 1-700 ##label SOR
REFERENCE
#authors Imaeoh, S.; Aoki, K.; Ohno, S.; Emori, Y.; Kawasaki, H.;
#journal Biochemistry (1988) 27:8122-8128
#title Molecular cloning of the cDNA for the large subunit of the
high-Ca(2+)-requiring form of human Ca(2+)-activated
neutral protease.
#cross-references MIMD:89166474
#accession A31218
#molecule_type protein
#residues 1-210,'I',212-394,'D',396-445,'T',447-700 ##label IMA
#cross-references GB:M2254; NID:9511636; PID:9511637
#note parts of this sequence were determined by protein
sequencing; the amino end of the mature protein is
blocked
REFERENCE
#authors Hata, A.; Ohno, S.; Akita, Y.; Suzuki, K.
#journal J. Biol. Chem. (1989) 264:6404-6411
#title Tandemly reiterated negative enhancer-like elements regulate
transcription of a human gene for the large subunit of
calcium-dependent protease.
#cross-references MIMD:89197947
#accession A33529
#molecule_type DNA
#residues 1-67,'G',69-72,'IE',75-78,'R' ##label HAT
#cross-references DDBJ:J04700; NID:9179910; PID:9463086
GENETICS
#gene GDB:CAPN2; mCAMP; CAPNm1
#cross-references GDB:119750; OMIM:114230
COMPLEX
#map_position lpter-1qter
#description heterodimer of L (large) and S (small) chains
FUNCTION
#note catalyzes the hydrolysis of peptides
cleaves preferentially after tyrosine, methionine, or
arginine residues and before leucine or valine residues
CLASSIFICATION
#superfamily calpain large chain; calmodulin repeat homology;
calpain catalytic domain homology
KEYWORDS
acetylated amino end; calcium binding; cysteine proteinase;
EF hand; heterodimer; hydrolase
FEATURE
2-700
#product calpain large chain 2 #status predicted #label
MAR\
75-327 #domain calpain catalytic domain homology #label CALP\
529-560 #domain calmodulin repeat homology #label EF1\
572-604 #domain calmodulin repeat homology #label EF2\
605-634 #domain calmodulin repeat homology #label EF3\
637-669 #domain calmodulin repeat homology #label EF3\
2 #modified-site acetylated amino end (Ala) (in mature
form) #status predicted\
105,262,286 #active-site Cys, His, Asn #status predicted
SUMMARY
#length 700 #molecular-weight 80020 #checksum 8484
Query Match 100.0%; Score 44; DB 1; Length 700;
Best Local Similarity 100.0%; Pred. No. 6.98e+00;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Db 80 EICADP 85
OY 1 EICADP 6
RESULT 5
ENTRY S38361 #type complete
TITLE calpain (EC 3.4.22.17) II large chain - rat
ALTERNATE_NAMES calpain II 80k chain
ORGANISM #formal_name Rattus norvegicus #common_name Norway rat
DATE 31-Dec-1993 #sequence_revision 02-Aug-1994 #text_change
08-Sep-1997
ACCESSIONS S38361; S08650; S39751
REFERENCE S38361

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#authors DeLuca, C.I.; Davies, P.L.; Samis, J.A.; Elce, J.S.
#journal Biochim. Biophys. Acta (1993) 1226:81-93
#title Molecular cloning and bacterial expression of cDNA for rat
calpain II 80 kDa subunit.
#accession S38361
#molecule_type mRNA
#residues 1-700 ##label DEL
#cross-references EMBL:L09120; NID:9402665; PID:9402666
REFERENCE
#authors Samis, J.A.; Back, D.W.; Graham, E.J.; Elce, J.S.
#submission submitted to the EMBL Data Library, February 1990
#accession S08650
#molecule_type DNA
#residues 380-439 ##label SAM
#cross-references EMBL:X51772
CLASSIFICATION
#superfamily calpain large chain; calmodulin repeat homology;
calpain catalytic domain homology
KEYWORDS
calcium binding; cysteine proteinase; duplication; EF hand;
heterodimer; hydrolase
FEATURE
75-327 #domain calpain catalytic domain homology #label CALP\
529-560 #domain calmodulin repeat homology #label EF1\
572-604 #domain calmodulin repeat homology #label EF2\
605-634 #domain calmodulin repeat homology #label EF3\
637-669 #domain calmodulin repeat homology #label EF4\
105,262,286 #active-site Cys, His, Asn #status predicted
SUMMARY
#length 700 #molecular-weight 79919 #checksum 441
Query Match 100.0%; Score 44; DB 2; Length 700;
Best Local Similarity 100.0%; Pred. No. 6.98e+00;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Db 80 EICADP 85
OY 1 EICADP 6
RESULT 6
ENTRY JC4912 #type complete
TITLE eotaxin - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 01-Nov-1996 #sequence_revision 01-Nov-1996 #text_change
08-Sep-1997
ACCESSIONS JC4912
REFERENCE JC4912
#authors Bartels, J.; Schlueter, C.; Richter, E.; Noso, N.; Kulke, R.;
Christophers, E.; Schroeder, J.M.
#journal Biochem. Biophys. Res. Commun. (1996) 225:1045-1051
#title Human dermal fibroblasts express eotaxin: Molecular cloning,
mRNA expression, and identification of eotaxin sequence
variants.
#accession JC4912
#status preliminary
#molecule_type mRNA
#residues 1-97 ##label BAR
#cross-references EMBL:D77668; NID:91531982; PID:e251275; PID:91531983
COMMENT ##experimental_source dermal fibroblast
This protein has eosinophil specific chemotactic activity.
CLASSIFICATION
#superfamily macrophage inflammatory protein
fibroblast
KEYWORDS
#domain signal sequence #status predicted #label SIG\
1-18 #product eotaxin #status predicted #label MAR
19-97 #product eotaxin #status predicted #label MAR
SUMMARY
#length 97 #molecular-weight 10790 #checksum 448
Query Match 97.7%; Score 43; DB 2; Length 97;
Best Local Similarity 83.3%; Pred. No. 1.12e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
Db 71 DICADP 76
OY 1 EICADP 6

```

RESULT 7
ENTRY JC2136 #type complete
TITLE monocyte chemoattractant protein-1 precursor - pig
ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
DATE 30-Sep-1993 #sequence_revision 20-Aug-1994 #text_change 08-Sep-1997
ACCESSIONS JC2136; S57498
REFERENCE JC2136
#authors Hosang, K.; Knoke, I.; Klaudiny, J.; Wempe, F.; Wutke, W.; Scheit, K.H.
#journal Biochem. Biophys. Res. Commun. (1994) 199:962-968
#title Porcine luteal cells express monocyte chemoattractant protein-1 (MCP-1): Analysis by polymerase chain reaction and cDNA cloning.
#accession JC2136
#molecule_type mRNA
#residues 1-99 ##label HOS
REFERENCE S57497
#authors Zach, O.
#submission Submitted to the EMBL Data Library, July 1994
#accession S57498
#status preliminary
#molecule_type mRNA
#residues 1-99 ##label ZAC
CLASSIFICATION #cross-references EMBL:X79416; NID:9872312; PID:9872313
KEYWORDS #superfamily macrophage inflammatory protein
FEATURE glycoprotein
1-23
24-99
94 #domain signal sequence #status predicted #label SIG\
#product monocyte chemoattractant protein-1 #status predicted #label MAR\
#binding_site carbohydrate (Asn) (covalent) #status predicted
SUMMARY #length 99 #molecular_weight 10976 #checksum 9768
Query Match 97.7%; Score 43; DB 2; Length 99;
Best Local Similarity 83.3%; Pred. No. 1.12e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
Db 73 EICADP 78
1-11111
QY 1 EICADP 6
RESULT 8
ENTRY F69231 #type complete
TITLE hypothetical protein MTH983 - Methanobacterium
ORGANISM #formal_name Methanobacterium thermoautotrophicum
DATE 05-Dec-1997 #sequence_revision 05-Dec-1997 #text_change 05-Jun-1998
ACCESSIONS F69231
REFERENCE A69000
#authors Smith, D.R.; Doucette-Stamm, L.A.; Deloughery, C.; Lee, H.; Dubois, J.; Aldredge, T.; Bashirzadeh, R.; Blakely, D.; Cook, R.; Gilbert, K.; Harrison, D.; Hoang, L.; Keagle, P.; Lumu, W.; Pothier, B.; Qiu, D.; Spadafora, R.; Viscare, R.; Wang, Y.; Wierzbowski, J.; Gibson, R.; Jivani, N.; Caruso, A.; Bush, D.; Safer, H.; Patwell, D.; Prabhakar, S.; McDougall, S.; Shimer, G.; Goyal, A.; Pietrovski, S.; Church, G.M.; Daniels, C.J.; Mao, J.; Rice, P.; Noelling, J.; Reeve, J.N.
#journal J. Bacteriol. (1997) 179:7135-7155
#title Complete genome sequence of Methanobacterium thermoautotrophicum Delta H: functional analysis and comparative genomics.
#cross-references MUID:98037514
#accession F69231
#status preliminary; nucleic acid sequence not shown;
#molecule_type DNA
#residues 1-64 ##label MTH

##cross-references GB:AE000872; GB:AE000666; NID:92622082; PID:92622084
#experimental_source strain Delta H
GENETICS
#gene MTH983
SUMMARY #length 64 #molecular_weight 7098 #checksum 7074
Query Match 95.5%; Score 42; DB 2; Length 64;
Best Local Similarity 83.3%; Pred. No. 1.77e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
Db 16 EICADP 21
1-11111
QY 1 EICADP 6
RESULT 9
ENTRY JC5295 #type complete
TITLE monocyte chemotactic protein-2 - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 02-May-1997 #sequence_revision 18-Jul-1997 #text_change 31-Oct-1997
ACCESSIONS JC5295
REFERENCE JC5295
#authors Van Collille, E.; Froyen, G.; Nomiyama, H.; Miura, R.; Fiten, P.; Van Aelst, I.; Van Damme, J.; Opdenakker, G.; Biochem. Biophys. Res. Commun. (1997) 231:726-730
#journal Human monocyte chemotactic protein-2: cDNA cloning and regulated expression of mRNA in mesenchymal cells.
#accession JC5295
#molecule_type mRNA
#residues 1-99 ##label VAN
#cross-references GB:X10802; NID:91924937; PID:e294088; PID:91924938
#experimental_source bone marrow
COMMENT This protein belongs to the beta-chemokine family which is one of the major HIV-suppressive factors. It plays roles in autoimmune processes such as multiple sclerosis and rheumatoid arthritis and in tumor biology, and contribute to the trafficking and recruitment of the responsive cells.
GENETICS
#gene MCP-2
CLASSIFICATION #superfamily macrophage inflammatory protein
FEATURE
1-23 #domain signal sequence #status predicted #label SIG\
24-99 #product monocyte chemotactic protein-2 #status predicted #label MAR
SUMMARY #length 99 #molecular_weight 11246 #checksum 6596
Query Match 95.5%; Score 42; DB 2; Length 99;
Best Local Similarity 83.3%; Pred. No. 1.77e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
Db 73 EVCADP 78
1-11111
QY 1 EICADP 6
RESULT 10
ENTRY JC2417 #type complete
TITLE monocyte chemoattractant protein-2 - pig
ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
DATE 24-Feb-1995 #sequence_revision 24-Feb-1995 #text_change 03-May-1996
ACCESSIONS JC2417
REFERENCE JC2417
#authors Hosang, K.; Knoke, I.; Klaudiny, J.; Wempe, F.; Wutke, W.; Scheit, K.H.
#journal Biochem. Biophys. Res. Commun. (1994) 205:148-153
#title Porcine luteal cells express monocyte chemoattractant protein-2 (MCP-2): Analysis by cDNA cloning and northern analysis.
#accession JC2417
#molecule_type mRNA
#residues 1-99 ##label HOS

```
##experimental_source corpus luteum
CLASSIFICATION #superfamily macrophage inflammatory protein
FEATURE
1-23 #domain signal sequence #status predicted #label SIG\
24-99 #predicted monocytic chemoattractant protein-2 #status
SUMMARY #length 99 #molecular-weight 10903 #checksum 7556
Query Match 95.5%; Score 42; DB 2; Length 99;
Best Local Similarity 83.3%; Pred. No. 1.77e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 73 EVCADP 78
1:|||||
QY 1 EICADP 6

RESULT 11
ENTRY 148147 #type complete
TITLE monocytic chemoattractant protein-1 - guinea pig
ORGANISM #formal_name Cavia porcellus #common_name guinea pig
DATE 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
09-May-1997
ACCESSIONS 148147
REFERENCE 148147
#authors Yoshimura, T.
#journal J. Immunol. (1993) 150:5025-5032
#title cDNA cloning of guinea pig monocytic chemoattractant protein-1
and expression of the recombinant protein.
#cross-references MUID:93267104
#accession I48147
##status preliminary; translated from GB/EMBL/DBJ
##molecule_type mRNA
##residues 1-120 #label RES
##cross-references GB:I04985; NID:g349820; PID:g349821
GENETICS
#gene MCP-1
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 120 #molecular-weight 13741 #checksum 9252
Query Match 95.5%; Score 42; DB 2; Length 120;
Best Local Similarity 83.3%; Pred. No. 1.77e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 71 EVCADP 76
1:|||||
QY 1 EICADP 6

RESULT 12
ENTRY A30209 #type complete
TITLE PDGF-inducible JE glycoprotein precursor - mouse
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 01-Dec-1989 #sequence_revision 01-Dec-1989 #text_change
01-May-1998
ACCESSIONS A30209; A44771; A30861
REFERENCE A30209
#authors Rollins, B.J.; Morrison, E.D.; Stiles, C.D.
#journal Proc. Natl. Acad. Sci. U.S.A. (1988) 85:3738-3742
#title Cloning and expression of JE, a gene inducible by
platelet-derived growth factor and whose product has
cytokine-like properties.
#cross-references MUID:88234501
#accession A30209
##molecule_type DNA
##residues 1-148 #label ROL
#cross-references GB:M19681; NID:g193486; PID:g387168; GB:M19682
REFERENCE A44771
#authors Kawahara, R.S.; Deuel, T.F.
#journal J. Biol. Chem. (1989) 264:679-682
#title Platelet-derived growth factor-inducible gene JE is a member
of a family of small inducible genes related to platelet
factor 4.
```

```
#accession A44771
##molecule_type DNA; mRNA
##residues 1-148 #label RA2
##cross-references GB:J04467; NID:g193488; PID:g387169
GENETICS
#gene JE
#introns 26/1; 65/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS cytokine; glycoprotein
FEATURE 126
SUMMARY #binding site carbohydrate (Asn) (covalent) #status
predicted
Query Match 95.5%; Score 42; DB 2; Length 148;
Best Local Similarity 83.3%; Pred. No. 1.77e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 73 EVCADP 78
1:|||||
QY 1 EICADP 6

RESULT 13
ENTRY I52322 #type complete
TITLE macrophage inflammatory protein-1alpha - rat
ORGANISM #formal_name Rattus norvegicus #common_name Norway rat
DATE 29-May-1998 #sequence_revision 29-May-1998 #text_change
02-Jul-1998
ACCESSIONS I52322
REFERENCE I52322
#authors Shi, M.M.; Godleski, J.J.; Paulauskis, J.D.
#journal Biochem. Biophys. Res. Commun. (1995) 211:289-295
#title Molecular cloning and posttranscriptional regulation of
macrophage inflammatory protein-1 alpha in alveolar
macrophages.
#cross-references MUID:95298037
#accession I52322
##status preliminary; translated from GB/EMBL/DBJ
##molecule_type mRNA
##residues 1-92 #label RES
##cross-references EMBL:U22414; NID:g790632; PID:g790633
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 92 #molecular-weight 10335 #checksum 3184
Query Match 93.2%; Score 41; DB 2; Length 92;
Best Local Similarity 83.3%; Pred. No. 2.80e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 71 QICADP 76
1:|||||
QY 1 EICADP 6

RESULT 14
ENTRY G69531 #type complete
TITLE alanyl-tRNA synthetase (alas) homolog - Archaeoglobus
ORGANISM #formal_name Archaeoglobus fulgidus
DATE 05-Dec-1997 #sequence_revision 05-Dec-1997 #text_change
21-Aug-1998
ACCESSIONS G69531
REFERENCE A69250
#authors Klenk, H.P.; Clayton, R.A.; Tomb, J.F.; White, O.; Nelson,
K.E.; Ketchum, K.A.; Dodson, R.J.; Gwinn, M.; Hickey, E.K.;
Peterson, J.D.; Richardson, D.L.; Krelavage, A.R.; Graham,
D.E.; Kyrpides, N.C.; Fleischmann, R.D.; Quackenbush, J.;
Lee, N.H.; Sutton, G.G.; Gill, S.; Kinkness, E.F.;
Dougherty, B.A.; McKenny, K.; Adams, M.D.; Loftus, B.;
Peterson, S.; Reich, C.I.; McNeil, L.K.; Badger, J.H.;
Glodek, A.; Zhou, L.; Overbeek, R.; Goodyear, J.D.; Weidman,
J.F.; McDonald, L.; Utterback, T.; Cotton, M.D.; Spriggs,
T.; Artlich, P.; Kaine, B.P.; Sykes, S.M.; Sadow, P.W.;
```


#journal
#title
#cross-references MUID:98049343
#accession G69531
#status preliminary; nucleic acid sequence not shown;
translation not shown
##molecule_type DNA
##residues 1-906 ##label KLE
##cross-references GB:AE000949; GB:AE000782; NID:g2689272; PID:g2648270;
TIGR:AF2255

CLASSIFICATION #superfamily alanine--trna ligase
SUMMARY #length 906 #molecular-weight 102536 #checksum 4232

Query Match 93.2%; Score 41; DB 2; Length 906;
Best Local Similarity 83.3%; Pred. No. 2.80e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 38 EICGDP 43
|||:|
QY 1 EICADP 6

RESULT 15
ENTRY JC5579 #type complete
TITLE chymotrypsin-like serine proteinase (EC 3.4.-.-) -
ORGANISM Streptomyces albobagriscolus
DATE 23-Sep-1997 #sequence_revision 23-Sep-1997 #text_change
26-Feb-1998

ACCESSIONS JC5579
REFERENCE JC5579
#authors Taguchi, S.; Ogawa, T.; Endo, T.; Momose, H.
#journal Biosci. Biotechnol. Biochem. (1997) 61:909-913
#title A gene homologous to the Streptomyces chymotrypsin-like
protease (SAM-P20) gene is tandemly located.
#accession JC5579
##molecule_type DNA
##residues 1-283 ##label TAG
##cross-references DDBJ:D86743
#note authors translated the codon AGC for residue 152 as Arg

GENETICS sam-p20D
#gene GTG
CLASSIFICATION #superfamily Streptomyces proteinase A; trypsin homology
KEYWORDS hydrolase
FEATURE 1-96
97-283
SUMMARY #domain signal sequence #status predicted #label SIG\
129,157,239 #product chymotrypsin-like serine proteinase #status
#predicted #label MAT\
#active_site His, Asp, Ser #status predicted
#length 283 #molecular-weight 28418 #checksum 1978

Query Match 90.9%; Score 40; DB 2; Length 283;
Best Local Similarity 50.0%; Pred. No. 4.39e+01;
Matches 3; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 231 DVCADP 236
|||:|
QY 1 EICADP 6

RESULT 16
ENTRY S49188 #type complete
TITLE electron transfer flavoprotein alpha chain homolog -
Azotobacter vinelandii
fixb protein
ALTERNATE_NAMES fixb protein
ORGANISM #formal_name Azotobacter vinelandii
DATE 16-Feb-1995 #sequence_revision 12-May-1995 #text_change
08-Sep-1997

ACCESSIONS S49188
REFERENCE S49188
#authors Wientjens, R.; van Dongen, W.; Haaker, H.
#submission submitted to the EMBL Data Library, April 1992
#description Molecular cloning of fixA, fixB, fixC and fixX genes of
Azotobacter vinelandii.
#accession S49188
#status preliminary
##molecule_type DNA
##residues 1-360 ##label WIE
##cross-references EMBL:X65515; NID:g510483; PID:g510486

CLASSIFICATION #superfamily electron transfer flavoprotein alpha chain
KEYWORDS electron transfer; flavoprotein
SUMMARY #length 360 #molecular-weight 39030 #checksum 5511

Query Match 90.9%; Score 40; DB 2; Length 360;
Best Local Similarity 66.7%; Pred. No. 4.39e+01;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 72 EICGDP 77
|||:|
QY 1 EICADP 6

RESULT 17
ENTRY A70709 #type complete
TITLE probable prfA protein - Mycobacterium tuberculosis (strain
H37RV)
ORGANISM #formal_name Mycobacterium tuberculosis
DATE 17-Jul-1998 #sequence_revision 17-Jul-1998 #text_change
17-Jul-1998

ACCESSIONS A70709
REFERENCE A70500
#authors Cole, S.T.; Brosch, R.; Parkhill, J.; Garnier, T.; Churcher,
C.; Harris, D.; Gordon, S.V.; Eigmeier, K.; Gas, S.; Barry
III, C.E.; Tekala, F.; Badcock, K.; Basham, D.; Brown, D.;
Chillingworth, T.; Connor, R.; Davies, R.; Devlin, K.;
Feltwell, T.; Gentles, S.; Hamlin, N.; Holroyd, S.;
Hornsby, T.; Jagels, K.; Krogh, A.; McLean, J.; Moule, S.;
Murphy, L.; Oliver, S.; Osborne, J.; Quail, M.A.;
Rajandream, M.A.; Rogers, J.; Rutter, S.; Seeger, K.;
Skellton, S.; Squares, S.; Sgares, R.; Sulston, J.E.;
Taylor, K.; Whitehead, S.; Barrett, B.G.
#journal Nature (1998) 393:537-544
#title Deciphering the biology of Mycobacterium tuberculosis from
the complete genome sequence.
#cross-references MUID:98295987
#accession A70709
#status preliminary; nucleic acid sequence not shown;
translation not shown
##molecule_type DNA
##residues 1-552 ##label COL
##cross-references GB:Z80226; GB:AL123456; NID:g3261638; PID:e266572;
#experimental_source strain H37RV

GENETICS prfA
#gene
SUMMARY #length 552 #molecular-weight 60896 #checksum 9026

Query Match 90.9%; Score 40; DB 2; Length 552;
Best Local Similarity 83.3%; Pred. No. 4.39e+01;
Matches 5; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 312 EICGDP 317
|||:|
QY 1 EICADP 6

RESULT 18
ENTRY C60407 #type fragment
TITLE monocytic adherence-induced protein 5 beta - human (fragment)
TITLE #formal_name Homo sapiens #common_name man
ORGANISM #formal_name Homo sapiens #common_name man
DATE 06-Nov-1992 #sequence_revision 06-Nov-1992 #text_change

```
03-May-1996
ACCESSIONS C60407
REFERENCE A60407
#authors Sporn, S.A.; Eierman, D.F.; Johnson, C.E.; Morris, J.;
#journal Martin, G.; Ladner, M.; Haskill, S.
#title J. Immunol. (1990) 144:4434-4441
Monocyte adherence results in selective induction of novel
genes sharing homology with mediators of inflammation and
tissue repair.
#cross-references MUID:90257367
#accession C60407
#status preliminary: not compared with conceptual translation
#molecule_type mRNA
#residues 1-50 ##label SPO
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 50 #checksum 9927

Query Match 88.6%; Score 39; DB 2; Length 50;
Best Local Similarity 66.7%; Pred. No. 6.83e+01;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 30 QVCADP 35
Qy 1 EICADP 6

RESULT 19
ENTRY A30574 #type complete
TITLE macrophage inflammatory protein 1-alpha precursor - human
ALTERNATE_NAMES LD78-alpha protein precursor; lymphocyte tumor
promoter-induced protein; macrophage inflammatory protein
homolog GOS19-1; MIP-1alpha; pM1464; small inducible
cytokine A3; T-cell activation protein 1
ORGANISM #formal_name Homo sapiens #common_name man
DATE 03-Aug-1992 #sequence_revision 03-Aug-1992 #text_change
29-May-1998
ACCESSIONS A35673; A30574; A30412; A24198; A30908
REFERENCE A35673
#authors Nakao, M.; Nomiyama, H.; Shimada, K.
#journal Mol. Cell. Biol. (1990) 10:3646-3658
#title Structures of human genes coding for cytokine LD78 and their
expression.
#cross-references MUID:90287155
#accession A35673
#molecule_type DNA
#residues 1-92 ##label NMK
#cross-references GB:D90144; NID:9219905; PID:01014875; PID:9219906
REFERENCE A30574
#authors Zipfel, P.F.; Balke, J.; Irving, S.G.; Kelly, K.; Siebenlist,
U.
#journal J. Immunol. (1989) 142:1582-1590
#title Mitogenic activation of human T cells induces two closely
related genes which share structural similarities with a
new family of secreted factors.
#cross-references MUID:89140347
#accession A30574
#molecule_type mRNA
#residues 1-92 ##label ZIP
#cross-references GB:M25315; NID:9602452; PID:9602453
REFERENCE A30412
#authors Blum, S.; Forsdyke, R.E.; Forsdyke, D.R.
#journal DNA Cell Biol. (1990) 9:589-602
#title Three human homologs of a murine gene encoding an inhibitor
of stem cell proliferation.
#cross-references MUID:91103879
#accession A30412
#molecule_type mRNA
#residues 1-92 ##label BLU
REFERENCE A24198
#authors Obaru, K.; Fukuda, M.; Maeda, S.; Shimada, K.
#journal J. Biochem. (1986) 99:885-894
#title A cDNA clone used to study mRNA inducible in human tonsillar
lymphocytes by a tumor promoter.

03-May-1996
#cross-references MUID:86223879
#accession A24198
#status preliminary
#molecule_type mRNA
#residues 1-92 ##label OBA
GENETICS
#gene GDB:SCY3
#cross-references GDB:120368; OMIM:182283
#map_position 17q11-17q21
CLASSIFICATION #superfamily macrophage inflammatory protein
FEATURE
1-20 #domain signal sequence #status predicted #label SIG\
21-92 #product macrophage inflammatory protein 1-alpha #status
predicted #label MAR\
33-57,34-73 #disulfide_bonds #status predicted
SUMMARY #length 92 #molecular_weight 10085 #checksum 4316

Query Match 88.6%; Score 39; DB 2; Length 92;
Best Local Similarity 66.7%; Pred. No. 6.83e+01;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 71 QVCADP 76
Qy 1 EICADP 6

RESULT 20
ENTRY A31767 #type complete
TITLE macrophage inflammatory protein 1-beta precursor - human
ALTERNATE_NAMES cytokine HC21; G-26 protein; H400 homolog; lymphocyte
activation gene 1 protein (LAG-1); MIP-beta; pM744; SCVY2
protein (misidentification); SIS gamma homolog; T cell
activation protein 2 (Act-2); T-cell activation protein
gamma
ORGANISM #formal_name Homo sapiens #common_name man
DATE 07-Jun-1990 #sequence_revision 29-May-1998 #text_change
29-May-1998
ACCESSIONS JH0319; A40978; A31767; A37411; B30574; B45817; D30552
REFERENCE JH0319
#authors Balxeras, E.; Roman-Roman, S.; Iitsukawa, S.; Genevee, C.;
Mechiche, S.; Vlegas-Pequignot, E.; Herceud, T.; Triebel,
F.
#journal Mol. Immunol. (1990) 27:1091-1102
#title Cloning and expression of a lymphocyte activation gene
(LAG-1).
#cross-references MUID:91061800
#accession JH0319
#status translation not shown
#molecule_type DNA
#residues 1-92 ##label BAI
#cross-references GB:X53682; NID:934217; PID:934218
#experimental_source natural killer cell, strain CD3-CD2+, F5, STILES
REFERENCE A40978
#authors Napolitano, M.; Modi, W.S.; Cevario, S.J.; Gnarr, J.R.;
Seunert, H.N.; Leonard, W.J.
#journal J. Biol. Chem. (1991) 266:17531-17536
#title The gene encoding the Act-2 cytokine. Genomic structure,
RTV-I/Tax responsiveness of 5' upstream sequences, and
chromosomal localization.
#cross-references MUID:91373378
#accession A40978
#molecule_type DNA
#residues 1-14,'S',16-69,'G',71-92 ##label NNP
#cross-references GB:M69201; NID:9178021
#note 15-Ala was also found
REFERENCE A31767
#authors Lipas, M.A.; Napolitano, M.; Jeang, K.T.; Chang, N.T.;
Leonard, W.J.
#journal Proc. Natl. Acad. Sci. U.S.A. (1988) 85:9704-9708
#title Identification, cloning, and characterization of an immune
activation gene.
#cross-references MUID:89071764
#accession A31767
```

```
#molecule-type mRNA
##residues 1-92 ##label LIP
##cross-references GB:J04130; NID:g178017; PID:g178018
REFERENCE
#authors Chang, H.C.; Reinherz, E.L.
#journal Eur. J. Immunol. (1989) 19:1045-1051
#title Isolation and characterization of a cDNA encoding a putative
cytokine which is induced by stimulation via the CD2
structure on human T lymphocytes.
#cross-references MUID:89325421
#accession A37411
##molecule-type mRNA
##residues 1-92 ##label CHA
##cross-references GB:X1616; NID:g32035; PID:g32036
REFERENCE
#authors Zipfel, P.F.; Balke, J.; Irving, S.G.; Kelly, K.; Siebenlist,
U.
#journal J. Immunol. (1989) 142:1582-1590
#title Mitogenic activation of human T cells induces two closely
related genes which share structural similarities with a
new family of secreted factors.
#cross-references MUID:89140347
#accession B30574
##molecule-type mRNA
##residues 1-19,'L',21-92 ##label ZIP
##cross-references GB:M25316; NID:g602454; PID:g602455
REFERENCE
#authors Miller, M.D.; Hata, S.; Malefyt, R.D.W.; Krangel, M.S.
#journal J. Immunol. (1989) 143:2907-2916
#title A novel polypeptide secreted by activated human T
lymphocytes.
#cross-references MUID:90038522
#accession B45817
##molecule-type mRNA
##residues 7-55,'I',57-79,'T',81-92 ##label MIL
##cross-references GB:M57503; NID:g339726; PID:g339727
REFERENCE
#authors Brown, K.D.; Zurawski, S.M.; Mosmann, T.R.; Zurawski, G.
#journal J. Immunol. (1989) 142:679-687
#title A family of small inducible proteins secreted by leukocytes
are members of a new superfamily that includes leukocyte
and fibroblast-derived inflammatory agents, growth factors,
and indicators of various activation processes.
#cross-references MUID:89093958
#accession D30552
##molecule-type mRNA
##residues 1-39,'REASS',46-92 ##label BRO
##cross-references GB:M23502; NID:g533212; PID:g533213
REFERENCE
#authors Clore, G.M.; Lodi, P.J.; Garrett, D.S.; Gronenborn, A.M.
#submission Submitted to the Brookhaven Protein Data Bank, January 1994
#cross-references PDB:1HUM
#contents annotation; conformation and disulfide bond assignments by
(1)H-NMR, residues 24-92
COMMENT This protein is secreted by activated lymphocytes and monocytes. It
is bound by chemokine (C-C) receptor 5 (see PIR:A43113) and
receptor 1 (see PIR:A45177).
GENETICS
#gene GDB:LAG1
##cross-references GDB:127451; OMIM:153335
#map_position 17q21-17q21
#introns 26/1: 64/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS chemotaxis; cytokine; inflammation
FEATURE
1-23 #domain signal sequence #status predicted #label SIG\
24-92 #product macrophage inflammatory protein 1-beta #status
experimental #label MAR\
#disulfide_bonds #status experimental
SUMMARY 34-58, 35-74 #length 92 #molecular-weight 10212 #checksum 7597
Query Match 88.6%; Score 39; DB 1; Length 92;
Best Local Similarity 66.7%; Pred. No. 6.83e+01;

#molecule-type mRNA
##residues 1-92 ##label LIP
##cross-references GB:J04130; NID:g178017; PID:g178018
REFERENCE
#authors Chang, H.C.; Reinherz, E.L.
#journal Eur. J. Immunol. (1989) 19:1045-1051
#title Isolation and characterization of a cDNA encoding a putative
cytokine which is induced by stimulation via the CD2
structure on human T lymphocytes.
#cross-references MUID:89325421
#accession A37411
##molecule-type mRNA
##residues 1-92 ##label CHA
##cross-references GB:X1616; NID:g32035; PID:g32036
REFERENCE
#authors Zipfel, P.F.; Balke, J.; Irving, S.G.; Kelly, K.; Siebenlist,
U.
#journal J. Immunol. (1989) 142:1582-1590
#title Mitogenic activation of human T cells induces two closely
related genes which share structural similarities with a
new family of secreted factors.
#cross-references MUID:89140347
#accession B30574
##molecule-type mRNA
##residues 1-19,'L',21-92 ##label ZIP
##cross-references GB:M25316; NID:g602454; PID:g602455
REFERENCE
#authors Miller, M.D.; Hata, S.; Malefyt, R.D.W.; Krangel, M.S.
#journal J. Immunol. (1989) 143:2907-2916
#title A novel polypeptide secreted by activated human T
lymphocytes.
#cross-references MUID:90038522
#accession B45817
##molecule-type mRNA
##residues 7-55,'I',57-79,'T',81-92 ##label MIL
##cross-references GB:M57503; NID:g339726; PID:g339727
REFERENCE
#authors Brown, K.D.; Zurawski, S.M.; Mosmann, T.R.; Zurawski, G.
#journal J. Immunol. (1989) 142:679-687
#title A family of small inducible proteins secreted by leukocytes
are members of a new superfamily that includes leukocyte
and fibroblast-derived inflammatory agents, growth factors,
and indicators of various activation processes.
#cross-references MUID:89093958
#accession D30552
##molecule-type mRNA
##residues 1-39,'REASS',46-92 ##label BRO
##cross-references GB:M23502; NID:g533212; PID:g533213
REFERENCE
#authors Clore, G.M.; Lodi, P.J.; Garrett, D.S.; Gronenborn, A.M.
#submission Submitted to the Brookhaven Protein Data Bank, January 1994
#cross-references PDB:1HUM
#contents annotation; conformation and disulfide bond assignments by
(1)H-NMR, residues 24-92
COMMENT This protein is secreted by activated lymphocytes and monocytes. It
is bound by chemokine (C-C) receptor 5 (see PIR:A43113) and
receptor 1 (see PIR:A45177).
GENETICS
#gene GDB:LAG1
##cross-references GDB:127451; OMIM:153335
#map_position 17q21-17q21
#introns 26/1: 64/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS chemotaxis; cytokine; inflammation
FEATURE
1-23 #domain signal sequence #status predicted #label SIG\
24-92 #product macrophage inflammatory protein 1-beta #status
experimental #label MAR\
#disulfide_bonds #status experimental
SUMMARY 34-58, 35-74 #length 92 #molecular-weight 10212 #checksum 7597
Query Match 88.6%; Score 39; DB 1; Length 92;
Best Local Similarity 66.7%; Pred. No. 6.83e+01;

Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
DB 72 QVCADP 77
:::|||||
QY 1 EICADP 6

RESULT 21
ENTRY B35673 #type complete
TITLE LD78-beta protein precursor - human
ALTERNATE_NAMES macrophage inflammatory protein homolog GOS19-2; sm11
inducible cytokine A4
ORGANISM #formal_name Homo sapiens #common_name man
DATE 28-Sep-1990 #sequence_revisions 28-Sep-1990 #text_change
24-Sep-1998
ACCESSIONS B35673; B30412; S10157; B30908
REFERENCES A35673
#authors Nakao, M.; Nomiyama, H.; Shimada, K.
#journal Mol. Cell. Biol. (1990) 10:3646-3658
#title Structures of human genes coding for cytokine LD78 and their
expression.
#cross-references MUID:90287155
#accession B35673
##status preliminary
##molecule-type DNA
##residues 1-93 ##label NAK
##cross-references GB:D90145; NID:g219907; PID:d1014876; PID:g219908
REFERENCE
#authors Blum, S.; Forsdyke, R.E.; Forsdyke, D.R.
#journal DNA Cell Biol. (1990) 9:589-602
#title Three human homologs of a murine gene encoding an inhibitor
of stem cell proliferation.
#cross-references MUID:91103879
#accession B30412
##status preliminary; not compared with conceptual translation
##molecule-type DNA
##residues 1-93 ##label BLU
##cross-references GB:M24110; GB:M32338; NID:g182848; PID:g182849
REFERENCE
#authors Irving, S.G.; Zipfel, P.F.; Balke, J.; McBride, O.W.; Morton,
C.C.; Burd, P.R.; Siebenlist, U.; Kelly, K.
#journal Nucleic Acids Res. (1990) 18:3261-3270
#title Two inflammatory mediator cytokine genes are closely linked
and variably amplified on chromosome 17q.
#cross-references MUID:90287702
#accession S10157
##status preliminary
##molecule-type mRNA
##residues 1-93 ##label IRV
##cross-references EMBL:X52149; NID:g34750; PID:g296666
COMMENT This protein is a member of a "small inducible" or "activation
specific" gene family, is likely to be an early-acting
interleukin, and is the product of a putative G0/G1 switch gene.
GENETICS
#gene GDB:SCYA4
##cross-references GDB:120369; OMIM:182284
#map_position 17q11-17q21
#introns 26/1: 64/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS cytokine
FEATURE
1-22 #domain signal sequence #status predicted #label SIG\
23-93 #product LD78-beta protein #status predicted #label MAR\
#length 93 #molecular-weight 10161 #checksum 7784
SUMMARY
Query Match 88.6%; Score 39; DB 2; Length 93;
Best Local Similarity 66.7%; Pred. No. 6.83e+01;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
DB 72 QVCADP 77
:::|||||
QY 1 EICADP 6
```

```
RESULT 22
ENTRY 22
TITLE A39296 #type complete
ALTERNATE_NAMES monocyte chemoattractant protein 1 precursor - bovine
ORGANISM monocyte chemotactic factor 1; seminal plasma protein P6
#formal_name Bos primigenius taurus #common_name cattle
DATE 03-Aug-1992 #sequence_revision 03-Aug-1992 #text_change
31-Oct-1997

ACCESSIONS A39296; B39296
REFERENCE A39296
#authors Wempe, F.; Henschen, A.; Schelt, K.H.
#journal DNA Cell Biol. (1991) 10:671-679
#title Gene expression and cDNA cloning identified a major basic
protein constituent of bovine seminal plasma as bovine
monocyte-chemoattractant protein-1 (MCP-1).
#cross-references MUID:92096117
#accession A39296
##molecule_type mRNA
##residues 1-99 ##label WEM
#accession B39296
##cross-references GB:M84602; GB:M85264; NID:g163394; PID:g163395
#accession B39296
##molecule_type protein
##residues 50-68, 'X', '70-74', 'X', '76' ##label WE2
#experimental_source seminal vesicle
#superfamily macrophage inflammatory protein
KEYWORDS glycoprotein
FEATURE
1-23 #domain signal sequence #status predicted #label SIG\
24-99 #product monocyte chemoattractant protein 1 #status
predicted #label MAT\
#binding_site carbohydrate (asn) (covalent) #status
predicted

SUMMARY #length 99 #molecular-weight 11114 #checksum 9401

Query Match 88.6%; Score 39; DB 2; Length 99;
Best Local Similarity 83.3%; Pred. No. 6.83e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 73 EICADP 78
1:11111
QY 1 EICADP 6

RESULT 23
ENTRY 23
TITLE JC2336 #type complete
ORGANISM monocyte chemoattractant protein-1 - bovine
#formal_name Bos primigenius indicus #common_name zebu cattle
DATE 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change
03-May-1996

ACCESSIONS JC2336
REFERENCE JC2336
#authors Wempe, F.; Kuhlmann, J.K.; Schelt, K.H.
#journal Biochem. Biophys. Res. Commun. (1994) 202:1272-1279
#title Characterization of the bovine monocyte chemoattractant
protein-1 gene.
#accession JC2336
##molecule_type protein
##residues 1-99 ##label WEM

GENETICS MCP-1
#gene 26/1; 65/2
#introns #superfamily macrophage inflammatory protein
CLASSIFICATION #length 99 #molecular-weight 11114 #checksum 9401
SUMMARY

Query Match 88.6%; Score 39; DB 2; Length 99;
Best Local Similarity 83.3%; Pred. No. 6.83e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 73 EICADP 78
1:11111
QY 1 EICADP 6
```

```
RESULT 24
ENTRY 24
TITLE I49555 #type complete
ORGANISM gene C10 protein - mouse
#formal_name Mus musculus #common_name house mouse
DATE 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
21-Aug-1998

ACCESSIONS I49555
REFERENCE I49555
#authors Orlofsky, A.; Berger, M.S.; Prystowsky, M.B.
#journal Cell Regul. (1991) 2:403-412
#title Novel expression pattern of a new member of the MIP-1 family
of cytokine-like genes.
#cross-references MUID:91370083
#accession I49555
#status Preliminary; translated from GB/EMBL/DBJ
##molecule_type mRNA
##residues 1-116 ##label RES
#cross-references GB:M58004; NID:g192243; PID:g192244

GENETICS C10
#gene #superfamily macrophage inflammatory protein
CLASSIFICATION #length 116 #molecular-weight 12984 #checksum 4161
SUMMARY

Query Match 88.6%; Score 39; DB 2; Length 116;
Best Local Similarity 66.7%; Pred. No. 6.83e+01;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 87 QVCADP 92
1:11111
QY 1 EICADP 6

RESULT 25
ENTRY 25
TITLE S76512 #type complete
ORGANISM hypothetical protein - Synecchocystis sp. (strain PCC 6803)
#formal_name Synecchocystis sp.
VARIETY PCC 6803
DATE 25-Apr-1997 #sequence_revision 25-Apr-1997 #text_change
21-Aug-1998

ACCESSIONS S76512
REFERENCE S74322
#authors Kaneko, T.; Sato, S.; Kotani, H.; Tanaka, A.; Asamizu, E.;
Nakamura, Y.; Miyajima, N.; Hirosewa, M.; Sugita, M.;
Sasamoto, S.; Kimura, T.; Hosouchi, T.; Matsuno, A.;
Muraki, A.; Nakazaki, N.; Naruo, K.; Okumura, S.; Shimpō,
S.; Takeuchi, C.; Wada, T.; Watanabe, A.; Yamada, M.;
Yasuda, M.; Tabata, S.
#journal DNA Res. (1996) 3:109-136
#title Sequence analysis of the genome of the unicellular
cyanobacterium Synecchocystis sp. PCC6803. II. Sequence
determination of the entire genome and assignment of
potential protein-coding regions.
#cross-references MUID:97061201
#accession S76512
#status Preliminary
##molecule_type DNA
##residues 1-296 ##label KAN
#cross-references EMBL:D64002; GB:AB001339; NID:g1001612; PID:d1011009;
PID:g1001627
#note the nucleotide sequence was submitted to the EMBL Data
Library, June 1996

SUMMARY #length 296 #molecular-weight 33245 #checksum 5558

Query Match 88.6%; Score 39; DB 2; Length 296;
Best Local Similarity 50.0%; Pred. No. 6.83e+01;
Matches 3; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 220 EVCIEP 225
1:11111
QY 1 EICADP 6

RESULT 26
```

ENTRY S29044 #type complete
TITLE endoglucanase A precursor - Butyrivibrio fibrisolvens
ORGANISM #formal_name Butyrivibrio fibrisolvens
DATE 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 09-Sep-1997

ACCESSIONS S29044
REFERENCE S29044
#authors Hazlwood, G.P.; Davidson, K.; Laurie, J.I.; Romaniec, M.P.M.; Gilbert, H.J.
#journal J. Gen. Microbiol. (1990) 136:2089-2097
#title Cloning and sequencing of the cels gene encoding endoglucanase A of Butyrivibrio fibrisolvens strain A46.
#accession S29044
#status Preliminary
#molecule_type DNA
#residues 1-429 #label HAZ
SUMMARY ##cross-references EMBL:M37031; NID:9144154; PID:9144155
#length 429 #molecular-weight 48858 #checksum 682

Query Match 88.6%; Score 39; DB 2; Length 429;
Best Local Similarity 66.7%; Pred. No. 6.83e+01;
Matches 4; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

DB 245 EICNBP 250
|||:|
QY 1 EICADP.6

RESULT 27
ENTRY A27631 #type complete
TITLE cellulase (EC 3.2.1.4) precursor - Clostridium acetobutylicum
ALTERNATE_NAMES endo-1,4-beta-glucanase
ORGANISM #formal_name Clostridium acetobutylicum
DATE 31-Dec-1988 #sequence_revision 30-Jun-1991 #text_change 09-Sep-1997

ACCESSIONS A27631
REFERENCE A27631
#authors Zappe, H.; Jones, W.A.; Jones, D.T.; Woods, D.R.
#journal Appl. Environ. Microbiol. (1988) 54:1289-1292
#title Structure of an endo-beta-1,4-glucanase gene from Clostridium acetobutylicum P262 showing homology with endoglucanase genes from Bacillus spp.
#cross-references MUID:88268074
#accession A27631
#molecule_type DNA
#residues 1-448 #label ZAP
SUMMARY ##cross-references EMBL:M31311; NID:9144789; PID:9144790
#note the authors translated the codon GAG for residue 116 as Gly, GAA for residue 263 as Gln and AAT for residue 439 as Asp

FUNCTION #description hydrolysis of 1,4-beta-D-glucosidic linkages in beta-D-glucans such as cellulose and lichenin; can hydrolyze such linkages in beta-D-glucans that also contain 1,3-linkages
#pathway cellulose degradation
KEYWORDS glycosidase; hydrolase; polysaccharide degradation
SUMMARY #length 448 #molecular-weight 49366 #checksum 3186

Query Match 88.6%; Score 39; DB 2; Length 448;
Best Local Similarity 66.7%; Pred. No. 6.83e+01;
Matches 4; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

DB 171 EICNBP 176
|||:|
QY 1 EICADP.6

RESULT 28
ENTRY A35971 #type fragment
TITLE mast cell growth factor - mouse (fragment)
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 14-Dec-1990 #sequence_revision 14-Dec-1990 #text_change

ACCESSIONS 16-Feb-1997
ENTRY A35971
TITLE mast cell growth factor - mouse (fragment)
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 14-Dec-1990 #sequence_revision 14-Dec-1990 #text_change 16-Feb-1997

ACCESSIONS B35971
REFERENCE B35971
#authors Williams, D.E.; Eisenman, J.; Baird, A.; Rauch, C.; Van Ness, K.; March, C.J.; Park, L.S.; Martin, U.; Mochizuki, D.Y.; Boswell, H.S.; Burgess, G.S.; Cosman, D.; Lyman, S.D.
#journal Cell (1990) 63:167-174
#title Identification of a ligand for the c-kit proto-oncogene.
#cross-references MUID:91004215
#accession A35971
#status Preliminary
#molecule_type protein
KEYWORDS #residues 1-49 #label WIL
SUMMARY #length 49 #checksum 6313

Query Match 86.4%; Score 38; DB 2; Length 49;
Best Local Similarity 66.7%; Pred. No. 1.06e+02;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

DB 2 EICGNP 7
|||:|
QY 1 EICADP.6

RESULT 29
ENTRY B35971 #type fragment
TITLE mast cell growth factor - mouse (fragment)
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 14-Dec-1990 #sequence_revision 14-Dec-1990 #text_change 16-Feb-1997

ACCESSIONS B35971
REFERENCE B35971
#authors Williams, D.E.; Eisenman, J.; Baird, A.; Rauch, C.; Van Ness, K.; March, C.J.; Park, L.S.; Martin, U.; Mochizuki, D.Y.; Boswell, H.S.; Burgess, G.S.; Cosman, D.; Lyman, S.D.
#journal Cell (1990) 63:167-174
#title Identification of a ligand for the c-kit proto-oncogene.
#cross-references MUID:91004215
#accession B35971
#status Preliminary
#molecule_type protein
KEYWORDS #residues 1-51 #label WIL
SUMMARY #length 51 #checksum 2124

Query Match 86.4%; Score 38; DB 2; Length 51;
Best Local Similarity 66.7%; Pred. No. 1.06e+02;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

DB 2 EICGNP 7
|||:|
QY 1 EICADP.6

RESULT 30
ENTRY C30552 #type complete
TITLE macrophage inflammatory protein 1-beta - mouse
ALTERNATE_NAMES H400; SIS gamma; T-cell activation protein gamma
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 28-Aug-1989 #sequence_revision 28-Aug-1989 #text_change 20-Mar-1998

ACCESSIONS C30552; J100088; P50304; S22042
REFERENCE A30552
#authors Brown, K.D.; Zurawski, S.M.; Mosmann, T.R.; Zurawski, G.
#journal J. Immunol. (1989) 142:679-687
#title A family of small inducible proteins secreted by leukocytes and fibroblast-derived inflammatory agents; growth factors, and indicators of various activation processes.
#cross-references MUID:89093958
#accession C30552
#molecule_type mRNA

```

##residues 1-92 ##label BRO
REFERENCE ##cross-references GB:M35503; NID:G533244; PID:G533245
#authors Sherry, B.; Tekamp-Olson, P.; Gallegos, C.; Bauer, D.;
Davatelis, G.; Wolpe, S.D.; Maslarsz, F.; Colt, D.; Cerami,
A.
#journal J. Exp. Med. (1988) 168: 2251-2259
#title Resolution of the two components of macrophage inflammatory
protein 1, and cloning and characterization of one of those
components, macrophage inflammatory protein 1 beta.
#cross-references MUID:89067830
#accession J10088
##molecule-type mRNA
##residues 1-92 ##label SHE
#accession PS0304
##cross-references GB:M35590; NID:G199696; PID:G199697
#accession PS0304
##molecule-type protein
##residues 24-33,'XX',36,'X',38 ##label SH2
REFERENCE S22042
#authors Daubersies, P.; Lepretre, F.; Bailleul, B.; Grove, M.;
Pragnell, I.; Plumb, M.
#submission Submitted to the EMBL Data Library, October 1991
#description Sequence of the murine macrophage inflammatory protein 1b
gene.
#accession S22042
##status preliminary
##molecule-type DNA
##residues 1-92 ##label DAT
#comment ##cross-references EMBL:X62502; NID:G53126; PID:G53127
COMMENT This protein is a monokine.
GENETICS
#introns 26/1: 64/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS glycoprotein
FEATURE
1-23 #domain signal sequence #status predicted #label SIG\
24-92 #product macrophage inflammatory protein 1-beta #status
experimental #label MAR\
#binding_site carbohydrate (asn) (covalent) #status
predicted
76 #length 92 #molecular-weight 10168 #checksum 7516
SUMMARY
Query Match 86.4%; Score 38; DB 2; Length 92;
Best Local Similarity 66.7%; Pred. No. 1.06e+02;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
Db 72 QICAMP 77
:|||||
OY 1 EICADP 6

```

Search completed: Thu Apr 1 07:30:11 1999
 Job time : 23 secs.

97 36 81.8 1789 1 IMB1 DROME LAMININ BETA-1 CHAIN P 1.51e+02
 98 36 81.8 2279 1 COAC_SCHRO ACETYL-COA CARBOXYLASE 1.51e+02
 99 36 81.8 2410 1 POLI_BAYMG GENOME POLYPROTEIN 1 (1.51e+02
 100 36 81.8 2412 1 POLI_BAYMG GENOME POLYPROTEIN 1 (1.51e+02

ALIGNMENTS

RESULT 1
 ID EOTA_MOUSE STANDARD; PRT: 97 AA.
 AC P48298;
 DT 01-FEB-1996 (REL. 33, CREATED)
 DT 01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
 GN SCYLL.
 OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUKARYOTA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-LUNG;
 RX MEDLINE; 96004658.
 RA ROTHENBERG M.E., LUSTER A.D., LEDER P.;
 RL PROC. NATL. ACAD. SCI. U.S.A. 92:8960-8964(1995).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC STRAIN-C57BL/6J; TISSUE-LUNG;
 RX MEDLINE; 96158746.
 RA GONZALEZ J.-A., JIA G.-O., AGUIRRE V., FRIEND D., COYLE A.J.,
 RA JENKINS N.A., LIN G.-S., KATZ H., LICHTMAN A., COPELAND N.G., KOPF M.,
 RA GUTTERER-RAMOS J.-C.;
 RL IMMUNITY 4:1-14(1996).
 CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
 DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS (A PROMINENT
 FEATURE OF ALLERGIC INFLAMMATORY REACTIONS), BUT NOT
 LYMPHOCYTES, MACROPHAGES OR NEUTROPHILS.
 CC -1- TISSUE SPECIFICITY: EXPRESSED CONSTITUTIVELY IN THE THYMUS.
 CC -1- EXPRESSION INDUCIBLE IN THE LUNG (TYPE I ALVEOLAR EPITHELIAL
 CELLS), INTESTINE, HEART, SPLEEN, KIDNEY.
 CC -1- INDUCTION: BY INTERFERON-GAMMA AND LIPOPOLYSACCHARIDE (LPS).
 CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 C-C) (CHEMOKINE CC).
 CC EMBL; U26426; G995911; -;
 DR EMBL; U40672; G1113937; -;
 DR MGD; MG1:103576; SCYLL.
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
 DE EOSINOPHIL: CYTOKINE: CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
 KW INFLAMMATORY RESPONSE.
 GN SCYLL.
 FT SIGNAL 1 23
 FT CHAIN 24 97
 FT DISULFID 32 57
 FT DISULFID 33 73
 FT DISULFID 33 73
 SO SEQUENCE 97 AA; 10893 MW; F85A96BC CRC32;
 Query Match 100.0%; Score 44; DB 1; Length 97;
 Best Local Similarity 100.0%; Pred. No. 3.26e+00;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OS RATTUS NORVEGICUS (RAT).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUKARYOTA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA WILLIAMS C.M., NEWTON D.J., WILSON S.A., COLEMAN J.C.,
 RA FLANNAGAN B.F.;
 RL SUBMITTED (DEC-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [2]
 RP SEQUENCE FROM N.A.
 RC TISSUE-LUNG;
 RA ISHII Y.;
 RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
 DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
 FEATURE OF ALLERGIC INFLAMMATORY REACTIONS (BY SIMILARITY).
 CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
 CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 C-C) (CHEMOKINE CC).
 DR EMBL; Y08358; E274141; -;
 DR EMBL; U96637; G2098785; -;
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
 DE EOSINOPHIL: CYTOKINE: CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
 KW INFLAMMATORY RESPONSE.
 GN SCYLL.
 FT SIGNAL 1 23
 FT CHAIN 24 97
 FT DISULFID 32 57
 FT DISULFID 33 73
 FT CARBOHYD 94 94
 FT CONFLICT 3 3
 FT CONFLICT 3 3
 SO SEQUENCE 97 AA; 10851 MW; 05B4ED45 CRC32;
 Query Match 100.0%; Score 44; DB 1; Length 97;
 Best Local Similarity 100.0%; Pred. No. 3.26e+00;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 71 EICADP 76
 QY 1 EICADP 6
 RESULT 3
 ID MCP4_HUMAN STANDARD; PRT: 98 AA.
 AC Q99616;
 DT 15-JUL-1998 (REL. 36, CREATED)
 DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 4 PRECURSOR (MCP-4) (MONOCYTE
 CHEMOTACTIC PROTEIN 4) (CK-BETA10) (MCC-1).
 DE CHEMOTACTIC PROTEIN 4 (CK-BETA10) (MCC-1).
 GN SCYLL.
 OS HOMO SAPIENS (HUMAN).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUKARYOTA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-HEART;
 RX MEDLINE; 97113354.
 RA GARCIA-ZEPEDA E.A., COMBADIERE C., ROTHENBERG M.E., SARAFI M.N.,
 RA LAVIGNE F., HAMID O., MURPHY P.M., LUSTER A.D.;
 RL J. IMMUNOL. 157:5613-5626(1996).
 RN [2]
 RP SEQUENCE FROM N.A., AND SEQUENCE OF 17-98.
 RC TISSUE-FETAL;
 RX MEDLINE; 96235049.
 RA DUGUCCIONI M., LOETSCHER P., FORSSMANN U., DENALD B., LI H., LIMA S.H.,
 RA LI Y., KREIDER B., GAROTTA G., THELEN M., BAGGIOLINI M.;
 RL J. EXP. MED. 183:2379-2384(1996).
 RN [3]
 RP SEQUENCE FROM N.A., AND SEQUENCE OF 22-33.
 RC TISSUE-FETAL;
 RX MEDLINE; 97341179.
 RA BERKHOUT T.A., SARAU H.M., MOORES K., WHITE J.R., ELSHOUBAGY N.,

RA APPELBAUM E., REAPE T.J., BRAUNER M., MAKWANA J., FOLEY J.J.,
 RA SCHMIDT D.B., IMBRIGIA C., MACNULTY D., MATTHEWS J., O'DONNELL K.,
 RA O'SHANNESST D., SCOTT M., GHOOT P.H.E., MACPHEE C.;
 RL J. BIOL. CHEM. 272:16404-16413(1997).
 RN [4]
 RP SEQUENCE FROM N.A.
 RA DANTE M., GIBSON A.;
 RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCYTES,
 CC BASOPHILS AND EOSINOPHILS, BUT NOT NEUTROPHILS. SIGNALS THROUGH
 CC CCR2B AND CCR4 RECEPTORS. PLAYS A ROLE IN THE ACCUMULATION OF
 CC LEUKOCYTES AT BOTH SIDES OF ALLERGIC AND NONALLERGIC INFLAMMATION.
 CC MAY BE INVOLVED IN THE RECRUITMENT OF MONOCYTES INTO THE ARTERIAL
 CC WALL DURING THE DISEASE PROCESS OF ARTERIOSCLEROSIS. MAY PLAY A
 CC ROLE IN THE MONOCYTE ATTRACTION IN TISSUES CHRONICALLY EXPOSED TO
 CC EXOGENOUS PATHOGENS.
 CC -1- MASS SPECTROMETRY: MW=9314; MW-ERR=30; METHOD=MALDI; RANGE=17-98.
 CC -1- MASS SPECTROMETRY: MW=8760; MW-ERR=30; METHOD=MALDI; RANGE=22-98.
 CC -1- MASS SPECTROMETRY: MW=8575; MW-ERR=30; METHOD=MALDI; RANGE=24-98.
 CC -1- INDUCTION: BY INTERLEUKIN-1 AND TNF-ALPHA.
 CC -1- TISSUE SPECIFICITY: WIDELY EXPRESSED. FOUND IN SMALL INTESTINE,
 CC THYMUS, COLON, LUNG, TRACHEA, STOMACH AND LYMPH NODE. LOW LEVELS
 CC SEEN IN THE PULMONARY ARTERY SMOOTH MUSCLE CELLS.
 CC -1- THIS PROTEIN CAN BIND HEPARIN.
 CC -1- PTM: ONE MAJOR ISOFORM MCP-4, AND TWO MINOR ISOFORMS (LA)MCP-4 AND
 CC (PNDQGLA)MCP-4 ARE PRODUCED BY DIFFERENTIAL SIGNAL CLEAVAGE.
 CC (LA)MCP-4 IS ABOUT 30 FOLD LESS ACTIVE THAN MCP-4.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL: U46767; G1732123; -.
 CC DR EMBL: AC002482; G2340091; -.
 CC DR MIM: 601391; -.
 DR PROSITE: P500472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOKINIS; SIGNAL; GLYCOPROTEIN; INFLAMMATORY RESPONSE.
 FT SIGNAL 1 23
 FT CHAIN 24 98 MONOCYTE CHEMOTACTIC PROTEIN 4.
 FT MOD.RES. 24 24 PYRROLIDONE CARBOXYLIC ACID.
 FT DISULFID 34 58 BY SIMILARITY.
 FT DISULFID 35 74 BY SIMILARITY.
 FT CARBOHYD 29 29 POTENTIAL.
 FT SEQUENCE 98 AA; 10986 MW; DF52P6EC CRC32;
 SQ
 Query Match 100.0%; Score 44; DB 1; Length 98;
 Best Local Similarity 100.0%; Pred. No. 3.26e+00;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

DB 72 EICADP 77
 111111
 OY 1 EICADP 6

RESULT 4
 ID MCP1_HUMAN STANDARD; PRT; 99 AA.
 AC P13500;
 DT 01-JAN-1990 (REL. 13, CREATED)
 DT 01-JAN-1990 (REL. 13, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE CHEMOTACTIC
 DE AND ACTIVATING FACTOR) (MCAF) (MONOCYTE SECRETORY PROTEIN JE)
 DE (MONOCYTE CHEMOTACTIC PROTEIN 1) (HC11) (SMALL INDICIBLE CYTOKINE
 DE A2).
 GN SC1A2 OR MCP1.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 89165862.
 RA FURUTANI Y., NOMURA H., NOTAKE M., OYAMADA Y., FUKUTI T., YAMADA M.,
 RA LARSEN C.G., OPPENHEIM J.J., MATSUSHIMA K.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 159:249-255(1989).
 RN [2]
 RP SEQUENCE FROM N.A.

RX MEDLINE: 90097880.
 RA ROLLINS B.J., STIER P., ERNST T., WONG G.G.;
 RA MOL. CELL. BIOL. 9:4687-4695(1989).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 89153605.
 RA YOSHIMURA T., YUKHI N., MOORE S.K., APPELLA E., LERMAN M.I.,
 RA LEONARD E.J.;
 RL FEBS LETT. 244:487-493(1989).
 RN [4]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 90290466.
 RA SHY Y.J., LI Y.S., KOLATTURDY P.E.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 169:346-351(1990).
 RN [5]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 91207938.
 RA CHANG H.C., HSU F., FREEMAN G.J., GRIFFIN J.D., REINHERZ E.L.;
 RL INT. IMMUNOL. 1:388-399(1989).
 RN [6]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 94150478.
 RA LI Y.S., SHY Y.J., WRIGHT J.G., VALENTE A.J., CORNHILL J.F.,
 RA KOLATTURDY P.E.;
 RL MOL. CELL. BIOCHEM. 126:61-68(1993).
 RN [7]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 92095166.
 RA YOSHIMURA T., LEONARD E.J.;
 RL ADV. EXP. MED. BIOL. 305:47-56(1991).
 RN [8]
 RP SEQUENCE OF 24-99.
 RX MEDLINE: 89184525.
 RA ROBINSON E.A., YOSHIMURA T., LEONARD E.J., TANAKA S., GRIFFIN P.R.,
 RA SHABANOWITZ J., HUNT D.F., APPELLA E.;
 RL PROC. NATL. ACADE. SCI. U.S.A. 86:1850-1854(1989).
 RN [9]
 RP SEQUENCE OF 29-53 AND 82-92.
 RX MEDLINE: 90211336.
 RA DECOCK B., CONINGS R., LENAERTS J.-P., BILLAU A., VAN DAMME J.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 167:904-909(1990).
 RN [10]
 RP 3D-STRUCTURE MODELLING.
 RX MEDLINE: 91312872.
 RA GRONENBORN A.M., CLORE G.M.;
 RL PROTEIN ENG. 4:263-269(1991).
 RN [11]
 RP X-RAY CRYSTALLOGRAPHY (1.85 ANGSTROMS).
 RX MEDLINE: 97143315.
 RA LOBKOWSKI J., BUDACZ G., DONATILLE P.J., HANDEL T.M., WLODAMER A.;
 RL NAT. STRUCT. BIOL. 4:64-69(1997).
 RN [12]
 RP STRUCTURE BY NMR.
 RX MEDLINE: 96234959.
 RA HANDEL T.M., DONATILLE P.J.;
 RL BIOCHEMISTRY 35:6569-6584(1996).
 RN [13]
 RP EFFECT OF DELETION OF N-TERMINAL RESIDUES.
 RX MEDLINE: 96195223.
 RA WEBER M., UGUCCIONI M., BAGGIOLINI M., CLARK-LEWIS I., DAHINEN C.A.;
 RL J. EXP. MED. 183:681-685(1996).
 RN [14]
 RP MUTAGENESIS.
 RX MEDLINE: 94253189.
 RA ZHANG Y.J., RUTLEDGE B.J., ROLLINS B.J.;
 RL J. BIOL. CHEM. 269:15918-15924(1994).
 RN [15]
 RP SUBUNIT.
 RX MEDLINE: 97053697.
 RA KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.;
 RL FEBS LETT. 395:277-282(1996).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND BASOPHILS
 CC BUT NOT NEUTROPHILS OR EOSINOPHILS. AUGMENTS MONOCYTE ANTI-TUMOR

CC ACTIVITY. HAS BEEN IMPLICATED IN THE PATHOGENESIS OF DISEASES
 CC CHARACTERIZED BY MONOCYTIC INFILTRATES, LIKE PSORIASIS, RHEUMATOID
 CC ARTHRITIS OR ATHEROSCLEROSIS. MAY BE INVOLVED IN THE RECRUITMENT
 CC OF MONOCYTES INTO THE ARTERIAL WALL DURING THE DISEASE PROCESS OF
 CC ATHEROSCLEROSIS.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER, IN EQUILIBRIUM.
 CC -1- PTM: SELECTING AT THE N-TERMINUS CAN REGULATE RECEPTOR AND TARGET
 CC CELL SELECTIVITY. DELETION OF THE AMINO- TERMINAL RESIDUE CONVERTS
 CC IT FROM AN ACTIVATOR OF BASOPHIL TO AN EOSINOPHIL CHEMOATTRACTANT.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC DR EMBL: M31626; G386961; -
 CC DR EMBL: M30816; G386961; JOINED.
 CC DR EMBL: M31625; G386961; JOINED.
 CC DR EMBL: M24545; G307163; -
 CC DR EMBL: M28226; G338009; -
 CC DR EMBL: X14768; G34514; -
 CC DR EMBL: M37719; G487124; -
 CC DR EMBL: M28225; G338007; -
 CC DR EMBL: M28223; G338007; JOINED.
 CC DR EMBL: M28224; G338007; JOINED.
 CC DR EMBL: S69738; G545465; -
 CC DR EMBL: S71513; G240868; -
 CC DR EMBL: A17786; G641145; -
 CC DR PIR: A35474; A35474.
 CC DR PIR: S03339; S03339.
 CC DR PDB: 1DOK; 12-MAR-97.
 CC DR PDB: 1DOL; 12-MAR-97.
 CC DR PDB: 1DOM; 14-OCT-96.
 CC DR PDB: 1DOM; 14-OCT-96.
 CC DR PDB: 1MCA; 15-OCT-94.
 CC DR MIM: 158105; -
 CC DR PROSITE: PS00472; SMALL CYTOKINES CC: 1.
 CC KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; 3D-STRUCTURE.
 CC FT SIGNAL 1 23
 CC FT CHAIN 1 23
 CC FT MOD_RES 24 99 MONOCYTE CHEMOTACTIC PROTEIN 1.
 CC FT DISULFID 34 59 PYRROLIDONE CARBOXYLIC ACID.
 CC FT DISULFID 35 75
 CC FT CARBOHYD 37 37
 CC FT VARIANT 76 76
 CC FT MUTAGEN 24 24 POTENTIAL.
 CC FT MUTAGEN 24 24 A -> T.
 CC FT MUTAGEN 25 32 MISSING: LOSS OF ACTIVITY.
 CC FT MUTAGEN 25 32 MISSING: LOSS OF ACTIVITY.
 CC FT MUTAGEN 24 85 MISSING: 90% REDUCTION IN ACTIVITY.
 CC FT MUTAGEN 24 91 MISSING: 83% REDUCTION IN ACTIVITY.
 CC FT MUTAGEN 26 26 D->A: 90% REDUCTION IN ACTIVITY.
 CC FT MUTAGEN 29 29 N->A: 50% REDUCTION IN ACTIVITY.
 CC FT MUTAGEN 47 47 R->F: 95% REDUCTION IN ACTIVITY.
 CC FT MUTAGEN 50 50 S->Q: 40% REDUCTION IN ACTIVITY.
 CC FT MUTAGEN 51 51 Y->D: LOSS OF ACTIVITY.
 CC FT MUTAGEN 53 53 R->L: LOSS OF ACTIVITY.
 CC FT MUTAGEN 91 91 D->L: 90% REDUCTION IN ACTIVITY.
 CC SQ SEQUENCE 99 AA: 11025 MW; 53538695 CRC32;
 CC Query Match 100.0%; Score 44; DB 1; Length 99;
 CC Best Local Similarity 100.0%; Pred. No. 3,26e+00;
 CC Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC OC EUTHERIA; PRIMATES.
 CC [1]
 CC RP SEQUENCE FROM N.A., AND SEQUENCE OF 31-67 AND 71-99.
 CC RX MEDLINE: 93213290.
 CC RA OPENNAKKE G., FROYEN G., FITTEN P., PROOST P., VAN DAMME J.;
 CC RL BIOCHEM. BIOPHYS. RES. COMMUN. 191:535-542(1993).
 CC [2]
 CC RP SEQUENCE FROM N.A.
 CC RX MEDLINE: 94375065.
 CC RA OPENNAKKE G., FITTEN P., NYS G., FROYEN G., VAN ROY N., SPELLEMAN F.,
 CC RA LAUREYS G., VAN DAMME J.;
 CC RL GENOMICS 21:403-408(1994).
 CC [3]
 CC RP SEQUENCE FROM N.A.
 CC RX MEDLINE: 93305913.
 CC RA MINTY A., CHALON P., GUILLEMOT J.C., KAGHAD M., LIAUZUN P.,
 CC RA MAGAZIN M., MILLOUX B., MINTY C., RAMOND P., VITA N., LUPPER J.,
 CC RA SHIRE D., FERRARA P., CAPUT D.;
 CC RL EUR. CYTOKINE NETW. 4:99-110(1993).
 CC [4]
 CC RP SEQUENCE OF 30-99.
 CC RC TISSUE-OSTEOSARCOMA;
 CC RX MEDLINE: 92308855.
 CC RA VAN DAMME J., PROOST P., LENAERTS J.-P., OPENNAKKE G.;
 CC RL J. EXP. MED. 176:59-65(1992).
 CC [5]
 CC RP STRUCTURE BY NMR, AND SUBUNIT.
 CC RX MEDLINE: 97053697.
 CC RA KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.;
 CC RL FEBS LETT. 395:277-282(1996).
 CC [6]
 CC RP STRUCTURE BY NMR.
 CC RX MEDLINE: 97263733.
 CC RA MEUNIER S., BERNASSAU J.-M., GUILLEMOT J.-C., FERRARA P., DARBON H.;
 CC RL BIOCHEMISTRY 36:4412-4422(1997).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND
 CC EOSINOPHILS. BUT NOT NEUTROPHILS AUGMENTS MONOCYTE ANTI-TUMOR
 CC ACTIVITY. ALSO INDICES THE RELEASE OF GELATINASE B. THIS PROTEIN
 CC CAN BIND HEPARIN.
 CC CC -1- SUBUNIT: MONOMER.
 CC CC -1- PTM: O-GLYCOSYLATED.
 CC CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC DR EMBL: X72308; G313708; ALT_INIT.
 CC DR EMBL: X72309; -; NOT_ANNOTATED_CDS.
 CC DR EMBL: X71087; G288399; -
 CC DR EMBL: X71087; G288398; ALT_INIT.
 CC DR EMBL: X71087; G288397; ALT_INIT.
 CC DR PIR: JCI478; JCI478.
 CC DR PIR: S32222; S32222.
 CC DR PIR: A54678; A54678.
 CC DR PDB: 1NCV; 15-OCT-97.
 CC DR MIM: 158106; -
 CC DR PROSITE: PS00472; SMALL CYTOKINES CC: 1.
 CC KW CYTOKINE; CHEMOTAXIS; HEPARIN-BINDING; GLYCOPROTEIN; SIGNAL;
 CC KM INFLAMMATORY RESPONSE; 3D-STRUCTURE.
 CC FT SIGNAL 1 23
 CC FT CHAIN 1 23
 CC FT MOD_RES 24 99 MONOCYTE CHEMOTACTIC PROTEIN 3.
 CC FT DISULFID 34 59 PYRROLIDONE CARBOXYLIC ACID.
 CC FT DISULFID 35 75 BY SIMILARITY.
 CC FT CARBOHYD 29 29
 CC FT CONFLICT 30 30
 CC FT CONFLICT 68 70
 CC FT SEQUENCE 99 AA: 11200 MW; 7502E19C CRC32;
 CC Query Match 100.0%; Score 44; DB 1; Length 99;
 CC Best Local Similarity 100.0%; Pred. No. 3,26e+00;
 CC Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 EICADP 6

RESULT 6
ID MCPI_CANFA STANDARD; PRT; 101 AA.
AC P52203;
DT 01-OCT-1996 (REL. 34, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
DE CHEMOTACTIC PROTEIN-1).
GN SCYA2 OR MCPI.
OS CANIS FAMILIARIS (DOG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; CARNIVORA.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-JUGULAR VEIN ENDOTHELIAL;
RX MEDLINE: 97176620.
RA KUMAR A.G., BALLANTYNE C.M., MICHAEL L.H., KUKIELKA G.L., YOUNGER K.A.,
RA LINSEY M.L., HAWKINS H.K., BIRDSALL H.H., MACKAY C.R., LAROSA G.J.,
RA ROSSEN R.D., SMITH C.W., ENTMAN M.L.;
RL CIRCULATION 95:693-700(1997).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC REACTION TO REPERFUSION OF THE PREVIOUSLY ISCHEMIC MYOCARDIUM.
CC MAY PLAY A SIGNIFICANT ROLE IN MONOCYTE TRAFFICKING INTO THE
CC REPERFUSED MYOCARDIUM.
CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC -1- INDUCTION: BY TNF-ALPHA.
CC -1- TISSUE SPECIFICITY: ENDOTHELIUM OF SMALL VEINS AND INTRAPASCICULAR
CC VEINS, AND INFILTRATING LEUKOCYTES.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
CC EMBL: U29653; G1144186;
DR PROSITE: PS00472; SMALL CYTOKINES_CC; 1.
KM CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23
FT CHAIN 24 101
FT MOD_RES 24 24
FT PYROGLUTAMINE CARBOXYLIC ACID (BY
FT SIMILARITY).
FT DISULFID 34 59
FT DISULFID 35 75
FT SEQUENCE 101 AA; 11121 MW; A7075B14 CRC32;
SQ

Query Match 100.0%; Score 44; DB 1; Length 101;
Best Local Similarity 100.0%; Pred. No. 3.26e+00;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

DB 73 EICADP 78
OY 1 EICADP 6

RESULT 7
ID MCP5_MOUSE STANDARD; PRT; 104 AA.
AC Q62401;
DT 01-NOV-1997 (REL. 35, CREATED)
DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 5 PRECURSOR (MCP-5) (MCP-1 RELATED
DE CHEMOKINE).
GN SCYA12 OR MCP5.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RC MEDLINE: 97079149.
RA JIA G.-O., GONZALO J.A., LLOYD C., KREMER L., LU L., MARTINEZ A.C.,
RA WERSHILL B.K., GUTIERREZ-RAMOS J.C.;
RL J. EXP. MED. 184:1939-1951(1996).
RN [2]

RP SEQUENCE FROM N.A.
RX MEDLINE: 97149438.
RA SARAFI M.N., GARCIA-ZEPEDA E.A., MACLEAN J.A., CHARO I.F.,
RA LUSTER A.D.;
RL J. EXP. MED. 185:99-109(1997).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS EOSINOPHILS, MONOCYTES,
CC AND LYMPHOCYTES BUT NOT NEUTROPHILS. POTENT MONOCYTE ACTIVE
CC CHEMOKINE THAT SIGNALS THROUGH CCR2. INVOLVED IN ALLERGIC
CC INFLAMMATION AND THE HOST RESPONSE TO PATHOGENS AND MAY PLAY A
CC SUBUNIT ROLE DURING EARLY STAGES OF ALLERGIC LUNG INFLAMMATION.
CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
CC -1- TISSUE SPECIFICITY: PREDOMINANTLY EXPRESSED IN THE LYMPH NODES AND
CC THYMUS. ALSO FOUND IN THE SALIVARY GLANDS CONTAINING LYMPH NODES,
CC BREAST, HEART, LUNG, BRAIN, SMALL INTESTINE, KIDNEY AND COLON.
CC -1- INDUCTION: BY IFN-GAMMA AND LIPOPOLYSACCHARIDE (LPS).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
CC EMBL: U50712; G1477582;
DR EMBL: U66670; G1881583;
DR MGI: 108224; SCYA12.
DR PROSITE: PS00472; SMALL CYTOKINES_CC; 1.
KM CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
FT SIGNAL 1 22
FT CHAIN 23 104
FT DISULFID 33 58
FT DISULFID 34 74
FT SEQUENCE 104 AA; 11659 MW; 08FA6C35 CRC32;
SQ

Query Match 100.0%; Score 44; DB 1; Length 104;
Best Local Similarity 100.0%; Pred. No. 3.26e+00;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

DB 72 EICADP 77
OY 1 EICADP 6

RESULT 8
ID MCP1_RAT STANDARD; PRT; 148 AA.
AC P14844;
DT 01-APR-1990 (REL. 14, CREATED)
DT 01-APR-1990 (REL. 14, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (IMMEDIATE-EARLY
DE SERUM-RESPONSIVE JE PROTEIN).
GN SCYA2 OR JE OR MCP1.
OS RATUS NORVEGICUS (RAT).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-WAG/RID; TISSUE-KIDNEY;
RX MEDLINE: 90174947.
RA TIMMERS H.T.H.M., PRONK G.J., BOS J.L., VAN DER EB A.J.;
RL NUCLEIC ACIDS RES. 18:23-34(1990).
RN [2]
RP SEQUENCE FROM N.A.
RC MEDLINE: 91128376.
RA YOSHIMURA T., TAKEYA M., TAKAHASHI K.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 174:504-509(1991).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS.
CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
CC EMBL: M57441; G205334;
DR EMBL: M57441; G205334;
DR PIR: J0128; J0128.
DR PIR: S07723; S07723.
DR HSSP: P13500; IMCA.
DR PROSITE: PS00472; SMALL CYTOKINES_CC; 1.
KM CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
FT SIGNAL 1 23

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FT CHAIN 24 148 MONOCYTE CHEMOTACTIC PROTEIN 1
FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY
FT DISULFID 34 59 SIMILARITY).
FT DISULFID 35 75 BY SIMILARITY.
FT CARBOHYD 126 126 POTENTIAL.
SQ SEQUENCE 148 AA; 16460 MW; DB97F97C CRC32;

Query Match
Best Local Similarity 100.0%; Score 44; DB 1; Length 148;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 73 EICADP 78
QY 1 EICADP 6

RESULT 9
ID THCB_RHOSO STANDARD; PRT: 436 AA.
AC P43492;
DT 01-NOV-1995 (REL. 32, CREATED)
DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DE CYTOCHROME P450 116 (EC 1.14.-.-).
GN THCB OR CYP116.
OS RHODOCOCUS SP. (STRAIN N186/21).
OC PROKARYOTA; FIRMICUTES; ACTINOMYCETALES; NOCARDIOPHORM.
RN [1]
RP SEQUENCE FROM N.A., AND SEQUENCE OF 1-20.
RC STRAIN-N186/21;
RX MEDLINE; 95138028.
RA NGUY I., SCHOOF G., COMPERNOLLE F., PROOST P., VANDERLEYDEN J.,
RA DE MOT R.,
RL J. BACTERIOL. 177:676-687(1995).
CC -1- INDUCTION: DEGRADATION OF THIOCARBAMATE HERBICIDES.
CC -1- INDUCTION: BY EPTC (S-ETHYL DIISOPROPYLCARBAMOTHIOLATE).
CC -1- SIMILARITY: BELONGS TO THE CYTOCHROME P450 FAMILY.
DR EMBL: U17130; G576670; -.
KW OXIDOREDUCTASE; MONOOXYGENASE; ELECTRON TRANSPORT; HEME.
FT INT_MET 0
FT METAL 374 374 HEME (BY SIMILARITY).
SQ SEQUENCE 436 AA; 48796 MW; 5AA794CD CRC32;

Query Match
Best Local Similarity 100.0%; Score 44; DB 1; Length 436;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 288 EICADP 293
QY 1 EICADP 6

RESULT 10
ID CAN2_RAT STANDARD; PRT: 700 AA.
AC 007009;
DT 01-JUN-1994 (REL. 29, CREATED)
DT 01-JUN-1994 (REL. 29, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE CALPAIN 2, LARGE (CATALYTIC) SUBUNIT (EC 3.4.22.17) (CALCIUM-ACTIVATED
DE NEUTRAL PROTEINASE) (CAMP) (M-TYPE).
GN CAPN2.
OS RATIUS NORVEGICUS (RAT).
OC EUKARYOTA; METAEOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE; 94032492.
RA DEUTCA C.I., DAVIES P.L., SAMIS J.A., ELCE J.S.;
RA BIOCHIM. BIOPHYS. ACTA 1216:81-93(1993).
CC -1- FUNCTION: CALPAINS ARE CALCIUM-ACTIVATED NON-LYSOSOMAL THIOL-
CC PROTEASES.
CC -1- ENZYME REGULATION: CALPAIN II IS ACTIVATED BY MILLIMOLAR

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CC -1- CONCENTRATIONS OF CALCIUM.
CC -1- SUBUNIT: HETERODIMER OF A LARGE (CATALYTIC) AND A SMALL
CC (REGULATORY) SUBUNIT.
CC -1- SUBCELLULAR LOCATION: CYTOPLASMIC.
CC -1- THIS PROTEIN SEEMS TO BIND TWO MOLES OF CALCIUM.
CC -1- IN RAT THERE SEEMS TO BE 2 TYPES OF CALPAIN: UNOBTAINOUS FORMS -
CC CALPAIN I (MICRO- MOLES CA++ REQUIRING) AND CALPAIN II (MILI-MOLE
CC CA++ REQUIRING), AND TISSUE SPECIFIC FORMS - CALPAIN P94 AND NC12.
CC THE SMALL UNIT IS COMMON TO ALL FORMS.
CC -1- SIMILARITY: TO OTHER EF-HAND CALCIUM BINDING PROTEINS.
CC -1- SIMILARITY: BELONGS TO PEPTIDASE FAMILY C2; ALSO KNOWN AS THE
CC CALPAIN FAMILY OF THIOL PROTEASES.
DR EMBL: L09120; G402666; -.
DR PIR: S38361; S38361.
DR PROSITE; PS00018; EF_HAND; 2.
DR PROSITE; PS00139; THIOL_PROTEASE_CYS; 1.
DR PROSITE; PS00639; THIOL_PROTEASE_HIS; FALSE NEG.
DR PROSITE; PS00640; THIOL_PROTEASE_ASN; FALSE NEG.
KW HYDROLASE; THIOL PROTEASE; CALCIUM-BINDING; MULTIGENE FAMILY.
FT DOMAIN 1 74 I, REGULATION OF PROTEASE ACTIVITY.
FT DOMAIN 2 75 327 II, THIOL PROTEASE.
FT DOMAIN 3 328 533 III.
FT DOMAIN 4 534 700 IV, CALCIUM-BINDING.
FT ACT_SITE 105 105 BY SIMILARITY.
FT ACT_SITE 262 262 BY SIMILARITY.
FT ACT_SITE 286 286 BY SIMILARITY.
FT CA_BIND 585 596 SITE 1 (PROBABLE).
FT CA_BIND 615 626 SITE 2 (PROBABLE).
FT DOMAIN 650 661 ANCESTRAL CALCIUM SITE 3 (POTENTIAL).
FT DOMAIN 680 691 ANCESTRAL CALCIUM SITE 4 (POTENTIAL).
SQ SEQUENCE 700 AA; 79919 MW; 8B5835BA CRC32;

Query Match
Best Local Similarity 100.0%; Score 44; DB 1; Length 700;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 80 EICADP 85
QY 1 EICADP 6

RESULT 11
ID CAN2_MOUSE STANDARD; PRT: 700 AA.
AC 008528; 035518;
DT 01-NOV-1997 (REL. 35, CREATED)
DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE CALPAIN 2, LARGE (CATALYTIC) SUBUNIT (EC 3.4.22.17) (CALCIUM-ACTIVATED
DE NEUTRAL PROTEINASE) (CAMP) (M-TYPE) (MILLIMOLAR-CALPAIN).
GN CAPN2.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAEOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RX STRAIN-BALB/C;
RA DEAR T.N.;
RN [2]
RP SEQUENCE FROM N.A.
RC STRAIN-BALB/C;
RA OZAKI Y.;
RL SUBMITTED (OCT-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -1- FUNCTION: CALPAINS ARE CALCIUM-ACTIVATED NON-LYSOSOMAL THIOL-
CC PROTEASES.
CC -1- ENZYME REGULATION: CALPAIN II IS ACTIVATED BY MILLIMOLAR
CC CONCENTRATIONS OF CALCIUM (BY SIMILARITY).
CC -1- SUBUNIT: HETERODIMER OF A LARGE (CATALYTIC) AND A SMALL
CC (REGULATORY) SUBUNIT.
CC -1- SUBCELLULAR LOCATION: CYTOPLASMIC.
CC -1- IN MAMMALS THERE SEEM TO BE 3 DISTINCT FORMS: CALPAIN I (MICRO-
CC MOLES CA++ REQUIRING), CALPAIN II (MILI-MOLE CA++ REQUIRING),
CC AND CALPAIN P94. THE SMALL UNIT IS COMMON TO ALL FORMS.

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CC -1- THIS PROTEIN SEEMS TO BIND TWO MOLES OF CALCIUM (BY SIMILARITY).
CC -1- SIMILARITY: TO OTHER EF-HAND CALCIUM BINDING PROTEINS.
CC -1- SIMILARITY: BELONGS TO PEPTIDASE FAMILY C2; ALSO KNOWN AS THE
CC CALPAIN FAMILY OF THIOLE PROTEASES.
DR EMBL; Y10139; E293718; -.
DR MGI; D38117; D1023840; -.
DR MGI; M8254; CAPN2.
DR PROSITE; PS00018; EF_HAND. 2.
DR PROSITE; PS00139; THIOLE_PROTEASE_CYS; 1.
DR PROSITE; PS00639; THIOLE_PROTEASE_HIS; FALSE_NEG.
DR PROSITE; PS00640; THIOLE_PROTEASE_ASN; FALSE_NEG.
KW HYDROLASE; THIOLE PROTEASE; CALCIUM-BINDING; MULTIGENE FAMILY.
FT DOMAIN 1 74
FT DOMAIN 75 327
FT DOMAIN 328 533
FT DOMAIN 534 700
FT ACT_SITE 105 105
FT ACT_SITE 262 262
FT ACT_SITE 286 286
FT CA_BIND 585 596
FT CA_BIND 615 626
FT DOMAIN 650 661
FT DOMAIN 680 691
FT CONFLICT 194 194
FT CONFLICT 212 212
FT CONFLICT 402 402
SQ SEQUENCE 700 AA; E8067F2B CRC32;

Query Match 100.0%; Score 44; DB 1; Length 700;
Best Local Similarity 100.0%; Pred. No. 3.26e+00;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 80 EICADP 85
OY 1 EICADP 6
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RESULT 12
ID CAN2_HUMAN STANDARD: PRT; 700 AA.
AC P17655; Q16738;
DT 01-AUG-1990 (REL. 15, CREATED)
DT 01-AUG-1990 (REL. 15, LAST SEQUENCE UPDATE)
DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE CALPAIN 2, LARGE (CATALYTIC) SUBUNIT (EC 3.4.22.17) (CALCIUM-ACTIVATED
DE NEUTRAL PROTEINASE) (CANP) (M-TYPE).
OS CAPN2 OR CAPN2.
GN HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RX SEQUENCE FROM N.A.
RX MEDLINE; 89166474.
RA IMAJOH S., AOKI K., OHNO S., EMORI Y., KAWASAKI H., SUGIHARA H.,
RA SUZUKI K.;
RA BIOCHEMISTRY 27:8122-8128(1988).
RN [2]
RN SEQUENCE OF 1-79 FROM N.A.
RX TISSUE-LYMPH NODE;
RX MEDLINE; 89197947.
RA HATA A., OHNO S., AKITA Y., SUZUKI K.;
RA J. BIOL. CHEM. 264:6404-6411(1989).
CC -1- FUNCTION: CALPAINS ARE CALCIUM-ACTIVATED NON-LYSOSOMAL THIOLE-
CC PROTEASES.
CC -1- ENZYME REGULATION: CALPAIN II IS ACTIVATED BY MILIMOLAR
CC CONCENTRATIONS OF CALCIUM.
CC -1- SUBUNIT: HETERODIMER OF A LARGE (CATALYTIC) AND A SMALL
CC (REGULATORY) SUBUNIT.
CC -1- SUBCELLULAR LOCATION: CYTOPLASMIC.
CC -1- IN MAMMALS THERE SEEM TO BE 3 DISTINCT FORMS: CALPAIN I (MICRO-
CC MOLES CA++ REQUIRING), CALPAIN II (MILI-MOLE CA++ REQUIRING),
CC AND CALPAIN P94. THE SMALL UNIT IS COMMON TO ALL FORMS.
CC -1- THIS PROTEIN SEEMS TO BIND TWO MOLES OF CALCIUM.
CC -1- SIMILARITY: TO OTHER EF-HAND CALCIUM BINDING PROTEINS.
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CC -1- SIMILARITY: BELONGS TO PEPTIDASE FAMILY C2; ALSO KNOWN AS THE
CC CALPAIN FAMILY OF THIOLE PROTEASES.
DR EMBL; M23254; G511637; -.
DR EMBL; J04700; G463086; -.
DR PIR; A31218; A31218.
DR MIM; 114230; -.
DR PROSITE; PS00018; EF_HAND. 2.
DR PROSITE; PS00139; THIOLE_PROTEASE_CYS; 1.
DR PROSITE; PS00639; THIOLE_PROTEASE_HIS; FALSE_NEG.
DR PROSITE; PS00640; THIOLE_PROTEASE_ASN; FALSE_NEG.
KW HYDROLASE; THIOLE PROTEASE; CALCIUM-BINDING; MULTIGENE FAMILY.
FT DOMAIN 1 74
FT DOMAIN 75 327
FT DOMAIN 328 533
FT DOMAIN 534 700
FT ACT_SITE 105 105
FT ACT_SITE 262 262
FT ACT_SITE 286 286
FT CA_BIND 585 596
FT CA_BIND 615 626
FT DOMAIN 650 661
FT DOMAIN 680 691
FT CONFLICT 68 68
FT CONFLICT 73 74
SQ SEQUENCE 700 AA; 80006 MM; 97158E66 CRC32;

Query Match 100.0%; Score 44; DB 1; Length 700;
Best Local Similarity 100.0%; Pred. No. 3.26e+00;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 80 EICADP 85
OY 1 EICADP 6
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RESULT 13
ID MCPB_BOVIN STANDARD: PRT; 74 AA.
AC P80343;
DT 01-FEB-1995 (REL. 31, CREATED)
DT 01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1B (MCP-1B) (FRAGMENT).
OS BOS TAURUS (BOVINE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLA.
RN [1]
RN SEQUENCE.
RX TISSUE-KIDNEY;
RX MEDLINE; 95034774.
RA PROOST P., WOYTS A., LENAERTS J.-P., VAN DAMME J.;
RA BIOCHEMISTRY 33:13406-13412(1994).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR ACTIVITY. ALSO INDUCES
CC THE RELEASE OF GELATINASE B. THIS PROTEIN CAN BIND HEPARIN.
CC -1- PIN: THE N-TERMINAL IS BLOCKED.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; HEPARIN-BINDING.
FT NON_TER 1 1
FT DISULFID 9 34
FT DISULFID 10 50
FT DISULFID 10 50
SQ SEQUENCE 74 AA; 8360 MM; 66172F08 CRC32;

Query Match 97.7%; Score 43; DB 1; Length 74;
Best Local Similarity 83.3%; Pred. No. 5.42e+00;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
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Db 48 EICADP 53
OY 1 EICADP 6
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RESULT 14
ID EOTA HUMAN STANDARD: PRT: 97 AA.
AC P51671: P50877: 092490: 092491;
DT 01-OCT-1996 (REL. 34, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
GN SCV411.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
CC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 96181758.
RA GARCIA-ZEPEDA E.A., ROTHENBERG M.E., OMNEY T.R., LEDER P.,
RA LUSTER A.D.;
RL NAT. MED. 2:449-456(1996).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 96189937.
RA POMATH P.D., QIN S., RINGLER D.J., CLARK-LEWIS I., WANG J., KASSAM N.,
RA SMITH H., SHI X., GONZALO J.A., NEWMAN W., GUTIERREZ-RAMOS J.C.,
RA MACKAY C.R.;
RL J. CLIN. INVEST. 97:604-612(1996).
RN [3]
RP SEQUENCE FROM N.A.
RX TISSUE-SMALL INTESTINE;
RX MEDLINE: 96205964.
RA KITAHARA M., NAKAJIMA T., IMAI T., HARADA S., COMBADIÈRE C.,
RA TIFFANY H.L., MURPHY P.M., YOSHIE O.;
RL J. BIOL. CHEM. 271:7725-7730(1996).
RN [4]
RP SEQUENCE FROM N.A., SEQUENCE OF 60-65 AND 75-88, AND VARIANTS.
RX TISSUE-FORESKIN;
RX MEDLINE: 96374440.
RA BARTELS J., SCHLEUTER C., RICHTER E., NOSO N., KULKE R.,
RA CHRISTOPHERS E., SCHROEDER J.M.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 225:1045-1051(1996).
RN [5]
RP SEQUENCE FROM N.A.
RX TISSUE-PLACENTA;
RX MEDLINE: 97312708.
RA GARCIA-ZEPEDA E.A., ROTHENBERG M.E., WEREMOWICZ S., SARAFI M.N.,
RA MORTON C.C., LUSTER A.D.;
RL GENOMICS 41:471-476(1997).
RN [6]
RP SEQUENCE FROM N.A.
RX TISSUE-LUNG;
RX MEDLINE: 97445071.
RA HEIN H., SCHLEUTER C., KULKE R., CHRISTOPHERS E., SCHROEDER J.M.,
RA BARTELS J.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 237:537-542(1997).
RN [7]
RP FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLEGENS, THIS PROTEIN
DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.
CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
CC -1- PRIM: O-GLYCOSYLATED (PROBABLE).
CC -1- INDUCTION: BY TNF-ALPHA, IL-1-ALPHA AND INTERFERON GAMMA.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
DR EMBL: U46573: G1280141: -;
DR EMBL: U34780: G1185440: -;
DR EMBL: D49372: G1552241: -;
DR EMBL: Z69291: E221070: -;
DR EMBL: Z75669: E251275: -;
DR EMBL: Z75669: E251258: -;
DR EMBL: U46572: G2088509: -;
DR EMBL: Z92709: E329504: -;
DR MTM: 601156: -;
DR PROSITE: PS00472: SMALL-CYTOKINES.CC. 1.
KW EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
KW INFLAMMATORY RESPONSE; POLYMORPHISM.
FT SIGNAL 1 23 POTENTIAL.

FT CHAIN 24 97 EOTAXIN.
FT DISULFID 32 57 BY SIMILARITY.
FT DISULFID 33 73 BY SIMILARITY.
FT VARIANT 7 7 L -> P (IN CLONE 34).
FT VARIANT 23 23 A -> T (IN CLONE 53).
FT VARIANT 51 51 R -> S (IN CLONE 34).
FT VARIANT 79 79 K -> R (IN CLONE 53).
SQ SEQUENCE 97 AA: 10732 MW: 660F3D98 CRC32;
Query Match 97.7%; Score 43; DB 1; Length 97;
Best Local Similarity 83.3%; Pred. No. 5.42e+00;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
Db 71 DICADP 76
Qy 1 EICADP 6
RESULT 15
ID MCP1_PIG STANDARD: PRT: 99 AA.
AC P42831;
DT 01-NOV-1995 (REL. 32, CREATED)
DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
GN SCY42.
OS SUS SCROFA (PIG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
CC EUTHERIA; ARTIODACTYLA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 94183284.
RA HOSANG K., KNOKE I., KLAUDINY J., WEMPE F., WUTKE W., SCHEIT K.H.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 199:962-968(1994).
RN [2]
RP SEQUENCE FROM N.A.
RX TISSUE-BRAIN;
RX ZACH O.R.F.;
RL SUBMITTED (JUL-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
NEUTROPHILS.
CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
DR EMBL: Z48479: G683717: -;
DR EMBL: X79416: G872313: -;
DR PROSITE: PS00472: SMALL-CYTOKINES.CC. 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23 BY SIMILARITY.
FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 1.
FT MOD_RES 24 24 PYROGLUTAMINE CARBOXYLIC ACID (BY
SIMILARITY).
FT DISULFID 34 59 BY SIMILARITY.
FT DISULFID 35 75 BY SIMILARITY.
SQ SEQUENCE 99 AA: 10976 MW: ECC3AFB4 CRC32;
Query Match 97.7%; Score 43; DB 1; Length 99;
Best Local Similarity 83.3%; Pred. No. 5.42e+00;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
Db 73 EICADP 78
Qy 1 EICADP 6
RESULT 16
ID MCP2_HUMAN STANDARD: PRT: 99 AA.
AC P80075; P78388;
DT 01-DEC-1992 (REL. 24, CREATED)
DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
CHEMOTRACTANT PROTEIN 2) (HC14).

GN SCY28 OR SCY210 OR MCP2.
 OS HOMO SAPIENS (HUMAN).
 OC EURAROTIA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A., AND VARIANT GLN-69.
 RX MEDLINE: 97237052.
 RA VAN COILLIE E., FITEN P., NOMIYAMA H., SAKAKI Y., MIURA R., YOSHIE O.,
 RL GENOMICS 40:323-331(1997).
 RN [2]
 RP SEQUENCE FROM N.A., AND VARIANT GLN-69.
 RC TISSUE-BONE MARROW;
 RX MEDLINE: 97224420.
 RA VAN COILLIE E., FROYEN F., NOMIYAMA H., MIURA R., FITEN P.,
 RL VAN ALST I., VAN DAMME J., OPDENAKKER G.;
 RN BIOCHEM. BIOPHYS. RES. COMMUN. 231:726-730(1997).
 RP [3]
 RP SEQUENCE OF 23-99 FROM N.A.
 RX MEDLINE: 91207938.
 RA CHANG H.C., HSU F., FREEMAN G.J., GRIFFIN J.D., REINHERZ E.L.;
 RL INT. IMMUNOL. 1:388-399(1989).
 RN [4]
 RP SEQUENCE OF 26-99.
 RC TISSUE-OSTEOSARCOMA;
 RX MEDLINE: 92308855.
 RA VAN DAMME J., PROOST P., LEMMERTS J.-P., OPDENAKKER G.;
 RN J. EXP. MED. 176:59-65(1992).
 RP [5]
 RP SUBUNIT.
 RX MEDLINE: 97053697.
 RA KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYRES B.D.;
 RL FEBS LETT. 395:277-282(1996).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCYTES,
 BASOPHILS AND EOSINOPHILS. MAY PLAY A ROLE IN NEOPLASIA AND
 INFLAMMATORY HOST RESPONSES. THIS PROTEIN CAN BIND HEPARIN.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM.
 CC -1- TISSUE SPECIFICITY: HIGHEST EXPRESSION FOUND IN THE SMALL
 INTESTINE AND PERIPHERAL BLOOD CELLS. INTERMEDIATE LEVELS SEEN IN
 THE HEART, PLACENTA, LUNG, SKELETAL MUSCLE, THYMUS, COLON, OVARY,
 CC SPINAL CORD AND PANCREAS. LOW LEVELS SEEN IN THE BRAIN, LIVER,
 CC SPLEEN AND PROSTATE.
 CC -1- INDUCTION: BY INTERFERON GAMMA, MITOGENS AND INTERLEUKIN-1.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 C-C) (CHEMOKINE CC).
 DR EMBL: X99886; E279930; ALT_INIT.
 DR EMBL: Y10802; E294088; -.
 DR HSSP: P13500; LMCA.
 DR MIM: 602283; -.
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE;
 KM POLYMORPHISM.
 FT SIGNAL 1 23 PROBABLE.
 FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 2.
 FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID.
 FT DISULFID 34 59 BY SIMILARITY.
 FT DISULFID 35 75 BY SIMILARITY.
 FT VARIANT 69 69 K -> O.
 SQ SEQUENCE 99 AA; 11246 MW; 5DDDS5C20 CRC32;

Query Match 95.5%; Score 42; DB 1; Length 99;
 Best Local Similarity 83.3%; Pred. No. 8.95e+00;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 73 EVCADP 78
 Oy 1 EICADP 6

RESULT 17
 ID MCP2_PIG STANDARD; PRT; 99 AA.
 AC P49873;
 DT 01-OCT-1996 (REL. 34, CREATED)

DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
 DE CHEMOTACTICANT PROTEIN 2).
 GN SCY28 OR MCP2.
 OS SCORORA (PIG).
 OC EURAROTIA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 95091716.
 RA HOSANG K.K., KNOKE I.I., KLADINY J.J., WEMPE F.F., WUTKE W.W.,
 RA SCHEIT K.K.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 205:148-153(1994).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN
 CAN BIND HEPARIN.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 C-C) (CHEMOKINE CC).
 DR EMBL: Z48480; G683719; -.
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.
 FT SIGNAL 1 23 BY SIMILARITY.
 FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 2.
 FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY
 FT DISULFID 34 59 SIMILARITY).
 FT DISULFID 35 75 BY SIMILARITY.
 SQ SEQUENCE 99 AA; 10903 MW; B7620BCF CRC32;

Query Match 95.5%; Score 42; DB 1; Length 99;
 Best Local Similarity 83.3%; Pred. No. 8.95e+00;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 73 EVCADP 78
 Oy 1 EICADP 6

RESULT 18
 ID MCP1_CAYPO STANDARD; PRT; 120 AA.
 AC Q08782;
 DT 01-NOV-1995 (REL. 32, CREATED)
 DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
 DE CHEMOTACTICANT PROTEIN-1).
 GN SCY28 OR MCP1.
 OS CAVIA PORCELLUS (GUINEA PIG).
 OC EURAROTIA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-Z; TISSUE-SPLEEN;
 RX MEDLINE: 93267104.
 RA YOSHIMURA T.;
 RL J. IMMUNOL. 150:5025-5032(1993).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
 CC NEUTROPHILS.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 C-C) (CHEMOKINE CC).
 DR EMBL: I04985; G349821; -.
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
 FT SIGNAL 1 23 BY SIMILARITY.
 FT CHAIN 24 120 MONOCYTE CHEMOTACTIC PROTEIN 1.
 FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY
 FT DISULFID 33 57 SIMILARITY).
 FT DISULFID 34 73 BY SIMILARITY.
 FT CARBOHYD 97 97 POTENTIAL.
 SQ SEQUENCE 120 AA; 13741 MW; 22FAD257 CRC32;

Query Match 95.5%; Score 42; DB 1; Length 120;
 Best Local Similarity 83.3%; Pred. No. 8.95e+00;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

DB 71 EVCADP 76
 1:|||||
 1 EICADP 6

RESULT 19
 ID MCP1 MOUSE STANDARD; PRT; 148 AA.
 AC P10148;
 DT 01-MAR-1989 (REL. 10, CREATED)
 DT 01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (PLATELET-DERIVED
 DE GROWTH FACTOR-INDUCIBLE PROTEIN 1)
 GN SCY4 OR MCP1 OR JE.
 OS MUS MUSCULUS (MOUSE).
 OC EURARCTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; RODENTIA.
 [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 89093129.
 RA KAWAHARA R.S., DEUEL T.F.;
 RL J. BIOL. CHEM. 264:579-682(1989).
 [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 88234501.
 RA ROLLINS B.J., MORRISON E.D., STILES C.D.;
 RL PROC. NATL. ACAD. SCI. U.S.A. 85:3738-3742(1988).
 [3]
 RP SEQUENCE OF 26-42.
 RX MEDLINE: 91293127.
 RA VAN DAMME J., DECOCK B., BERTINI R., CONINGS R., LEMAERTS J.-P.,
 RA PUT W., OPDENAKKER G., MANTOVANI A.;
 RL EUR. J. BIOCHEM. 199:223-229(1991).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
 CC NEUTROPHILS.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER, IN EQUILIBRIUM (BY SIMILARITY).
 CC -1- INDUCTION: BY PLATELET-DERIVED GROWTH FACTOR.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL: J04467; G387169; -;
 DR EMBL: M19681; G387168; -;
 DR PIR: A30209; A30209.
 DR PIR: A30861; A30861.
 DR PIR: S16226; S16226.
 DR HSSP: P13500; 1MCA.
 DR MGI: 98259; SCY42.
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 DR CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
 FT SIGNAL 1 23 BY SIMILARITY.
 FT CHAIN 24 148 MONOCYTE CHEMOTACTIC PROTEIN 1.
 FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY
 FT SIMILARITY).
 FT DISULFID 34 59 BY SIMILARITY.
 FT DISULFID 35 75 BY SIMILARITY.
 FT CARBOHYD 126 126 POTENTIAL.
 SQ SEQUENCE 148 AA; 16326 MW; B7572BBC CRC32;

Query Match 95.5%; Score 42; DB 1; Length 148;
 Best Local Similarity 83.3%; Pred. No. 8.95e+00;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

DB 73 EVCADP 78
 1:|||||
 1 EICADP 6

RESULT 20
 ID MIP4_HUMAN STANDARD; PRT; 89 AA.

AC P55774;
 DT 01-NOV-1997 (REL. 35, CREATED)
 DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MACROPHAGE INFLAMMATORY PROTEIN 4 PRECURSOR (MIP-4) (PULMONARY AND
 DE ACTIVATION-REGULATED CHEMOKINE) (CC CHEMOKINE PARC) (ALTERNATIVE
 DE ACTIVATED MACROPHAGE ASSOCIATED CC CHEMOKINE 1) (AMAC-1).
 GN SCY48 OR MIP4.
 OS HOMO SAPIENS (HUMAN).
 OC EURARCTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; PRIMATES.
 [1]
 RP SEQUENCE FROM N.A.
 RA LI H., RUBEN S.;
 RL PATENT NUMBER US5504003.
 [2]
 RP SEQUENCE FROM N.A., AND PARTIAL SEQUENCE.
 RC TISSUE-AORTA, AND LUNG;
 RX MEDLINE: 97376836.
 RA HISHTA K., IMAI T., BABA M., SHODAI K., ISHIZUKA K.,
 RA NARAGAWA T., TSURUTA J., TAKEYA M., SAKAKI Y., TAKASUKI K.,
 RA MIURA R., OPDENAKKER G., VAN DAMME J., YOSHIE O., NOMIYAMA H.;
 RL J. IMMUNOL. 159:1140-1149(1997).
 [3]
 RP SEQUENCE FROM N.A.
 RA KOEHLER V., MUELLER C., POLITZ O., HAKTY N., ORFANOS C.E., GOERDT S.;
 RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 [4]
 RP MEDLINE: 97275308.
 RA WELLS T.N.C., PETTSCH M.C.;
 RL J. LEUKOC. BIOL. 61:345-350(1997).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS LYMPHOCYTES BUT NOT
 CC MONOCYTES OR GRANULOCYTES. MAY BE INVOLVED IN B CELL MIGRATION
 CC INTO B CELL FOLLICLES IN LYMPH NODES.
 CC -1- TISSUE SPECIFICITY: EXPRESSED AT HIGH LEVELS IN THE LUNG. A LOWER
 CC LEVEL EXPRESSION IS SEEN IN LYMPHOID TISSUES SUCH AS LYMPH NODES,
 CC THYMUS AND APPENDIX.
 CC -1- INDUCTION: BY LIPOPOLYSACCHARIDE (LPS).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL: AB000221; D1022520; -;
 DR EMBL: Y13710; E321838; -;
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 DR CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 20
 FT CHAIN 21 89 MACROPHAGE INFLAMMATORY PROTEIN 4.
 FT DISULFID 30 54 BY SIMILARITY.
 FT DISULFID 31 70 BY SIMILARITY.
 SQ SEQUENCE 89 AA; 9849 MW; 052AA3DC CRC32;

Query Match 93.2%; Score 41; DB 1; Length 89;
 Best Local Similarity 83.3%; Pred. No. 1.46e+01;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

DB 68 QICADP 73
 1:|||||
 1 EICADP 6

RESULT 21
 ID M1B_RAT STANDARD; PRT; 92 AA.
 AC P50230;
 DT 01-OCT-1996 (REL. 34, CREATED)
 DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
 DT 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
 DE MACROPHAGE INFLAMMATORY PROTEIN 1-BETA PRECURSOR (MIP-1-BETA).
 GN SCY44 OR MIP1B.
 OS RATTUS NORVEGICUS (RAT).
 OC EURARCTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; RODENTIA.
 [1]
 RP SEQUENCE FROM N.A.

RA FLEISCHMANN R.D., QUACKENBUSH J., LEE N.H., SUTTON G.G., GILL S.,
 RA KIRKNESS E.F., DOUGHERTY B.A., MCKENNEY K., ADAMS M.D., LOFTUS B.,
 RA PETERSON S., REICH C.T., MCNEIL L.R., BADGER J.H., GLUCKER A., ZHOU L.,
 RA OVERBERGER R., GOCAYNE J.D., WEIDMAN J.F., McDONALD L., UTTERBACK T.,
 RA COTTON M.D., SPIRIGS T., ARTIACH P., KAINE B.P., SYKES S.M.,
 RA SADOW P.W., D'ANDREA K.P., BOWMAN C., FUJII C., GARLAND S.A.,
 RA MASON T.M., OLSEN G.J., FRASER C.M., SMITH H.O., WOESE C.R.,
 RA VENTER J.C.,
 RL NATURE 390:364-370(1997).
 CC -1- CATALYTIC ACTIVITY: ATP + L-ASPARTATE + TRNA(ASP) = AMP +
 CC PYROPHOSPHATE + L-ASPARTYL-TRNA(ASP).
 CC -1- SUBCELLULAR LOCATION: CYTOPLASMIC.
 CC -1- SIMILARITY: BELONGS TO CLASS-II AMINOACYL-TRNA SYNTHETASE FAMILY.
 DR EMBL: AF00949; G2648270; -.
 DR TRIG: AF2255; -.
 DR PROSITE: PS00179; AA-TRNA_LIGASE_II_1; FALSE_NEG.
 DR PROSITE: PS00339; AA-TRNA_LIGASE_II_2; FALSE_NEG.
 KM AMINOCACYL-TRNA SYNTHETASE; PROTEIN BIOSYNTHESIS; LIGASE; ATP-BINDING.
 SQ SEQUENCE 906 AA; 102536 MW; 54E57BAC CRC32;
 Query Match 93.2%; Score 41; DB 1; Length 906;
 Best Local Similarity 83.3%; Pred. No. 1.46e+01;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
 Db 38 EICGDP 43
 |||||
 QY 1 EICADP 6
 RESULT 25
 ID FIXB_AZOVI STANDARD; PRT; 360 AA.
 AC P53574;
 DT 01-OCT-1996 (REL. 34, CREATED)
 DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
 DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
 DE FIXB PROTEIN.
 DE
 GN FIXB.
 OS AZOTOBACTER VINELANDII.
 OC PROKARYOTA; GRACILICUTES; SCOTOBACTERIA; AEROBIC RODS AND COCCI;
 OC ACETOBACTERIACEAE.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-ATCC 478;
 RA WIENTJENS R., VAN DONGEN W., HAAKER H.;
 RL SUBMITTED (JUL-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
 CC -1- FUNCTION: MAY PLAY A ROLE IN A REDOX PROCESS INVOLVED IN NITROGEN
 CC FIXATION.
 CC -1- SUBUNIT: FIXA AND FIXB FORM A HETERODIMER (PROBABLE).
 CC -1- SIMILARITY: BELONGS TO THE ETF ALPHA-SUBUNIT / FIXB FAMILY.
 DR EMBL: X65515; G510486; -.
 DR PROSITE: PS00696; ETF_ALPHA; 1.
 KM ELECTRON TRANSPORT; FAD; NITROGEN FIXATION.
 FT NF_BIND 293 321 FAD (ADP PART) (POTENTIAL).
 SQ SEQUENCE 360 AA; 39030 MW; 044091DA CRC32;
 Query Match 90.9%; Score 40; DB 1; Length 360;
 Best Local Similarity 66.7%; Pred. No. 2.38e+01;
 Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
 Db 72 EICGEP 77
 |||||
 QY 1 EICADP 6
 RESULT 26
 ID MIB_CHICK STANDARD; PRT; 90 AA.
 AC 090826;
 DT 01-NOV-1997 (REL. 35, CREATED)
 DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MACROPHAGE INFLAMMATORY PROTEIN 1-BETA HOMOLOG PRECURSOR.
 OS GALLUS GALLUS (CHICKEN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; AVES; NEOGNATHA;

OC GALLIFORMES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-BONE MARROW;
 RX MEDLINE: 95369710.
 RA PETRENKO O., ISCHENKO I., ENRIETTO P.J.;
 RL GENE 160:305-306(1995).
 RN [2]
 RP SEQUENCE OF 14-90 FROM N.A.
 RA PETRENKO O., ENRIETTO P.J.;
 RL SUBMITTED (JUL-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
 CC -1- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES
 CC (BY SIMILARITY).
 CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC -C) (CHEMOKINE CC).
 DR EMBL: L3453; G509596; -.
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KM CYTOKINE; CHEMOTAXIS; SIGNAL.
 FT SIGNAL 1 21 BY SIMILARITY.
 FT CHAIN 22 90 MACROPHAGE INFLAMMATORY PROTEIN 1-BETA.
 FT DISULFID 32 56 BY SIMILARITY.
 FT DISULFID 33 72 BY SIMILARITY.
 FT CONFLICT 87 87 L->M (IN REF. 2).
 SQ SEQUENCE 90 AA; 9969 MW; B5637084 CRC32;
 Query Match 88.6%; Score 39; DB 1; Length 90;
 Best Local Similarity 66.7%; Pred. No. 3.82e+01;
 Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
 Db 70 EVCANP 75
 |||||
 QY 1 EICADP 6
 RESULT 27
 ID MIB_HUMAN STANDARD; PRT; 92 AA.
 AC P13236; P22617; Q13704;
 DT 01-JAN-1990 (REL. 13, CREATED)
 DT 01-JAN-1990 (REL. 13, LAST SEQUENCE UPDATE)
 DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
 DE MACROPHAGE INFLAMMATORY PROTEIN 1-BETA PRECURSOR (MIP-1-BETA) (T-CELL
 DE ACTIVATION PROTEIN 2) (ACT-2) (PAT 744) (H400) (SIS GAMMA) (LYMPHOCYTE
 DE ACTIVATION GENE 1 PROTEIN) (LAG-1) (HC21) (SMALL INDUCIBLE CYTOKINE
 DE A4) (G-26 T LYMPHOCYTE-SECRETED PROTEIN).
 GN SCYA4 OR MIP1B OR LAG1.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 89071764.
 RA LIPES M.A., NAOLITANO M., JEANG K.-T., CHANG N.T., LEONARD W.J.;
 RL PROC. NATL. ACADE. SCI. U.S.A. 85:9704-9708(1988).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 89140347.
 RA ZIPPEL P.F., BALKE J., IRVING S.G., KELLY K., SIEBELIST U.;
 RL J. IMMUNOL. 142:1582-1590(1989).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 89093958.
 RA BROWN K.D., ZURAWSKI S.M., MOSMANN T.R., ZURAWSKI G.;
 RL J. IMMUNOL. 142:679-687(1989).
 RN [4]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 91061800.
 RA BAIXERAS E., ROMAN-ROMAN S., JITSUKAWA S., GENEVEE C., MECHICHE S.,
 RA VIEGAS-PEOUGNOT E., HERCEND T., TRIEBEL F.;
 RL MOL. IMMUNOL. 27:1091-1102(1990).
 RN [5]
 RP SEQUENCE FROM N.A.
 RC TISSUE-T-CELL;

RX MEDLINE: 89325421.
RA CHANG H.C., REINHERZ E.L.,
RL EUR. J. IMMUNOL. 19:1045-1051(1989).
RN [6]
RP SEQUENCE FROM N.A.
RX MEDLINE: 91373378.
RA NAPOLITANO M., MODI W.S., CEVARIO S.J., GNARRA J.R., SEUANEZ H.N.,
RL LEONARD W.J.,
RN J. BIOL. CHEM. 266:17531-17536(1991).
RP SEQUENCE OF 6-92 FROM N.A.
RX MEDLINE: 90038522.
RA MILLER M.D., HATA S., MAAL, MALEFYT R., KRANGEL M.S.,
RL J. IMMUNOL. 143:2907-2916(1989).
RN [8]
RP STRUCTURE BY NMR.
RX MEDLINE: 94182137.
RA LODI P.J., GARRETT D.S., KUSCEWSKI J., TSANG M.L.S., WEATHERBEE J.A.,
RL LEONARD W.J., GROENBORN A.M., CLORE G.M.,
RN SCIENCE 263:1762-1767(1994).
CC -1- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.
CC -1- SUBUNIT: HOMODIMER.
CC -1- INDUCTION: BY MITOGENS.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
CC EMBL: M23502; G533213; -.
DR EMBL: M25316; G602453; -.
DR EMBL: J04130; G178018; -.
DR EMBL: X53683; G34218; -.
DR EMBL: X53682; E35870; ALT-SEQ.
DR EMBL: X16166; G32036; -.
DR EMBL: M69203; G1332376; -.
DR EMBL: M69201; G1332376; JOINED.
DR EMBL: M69202; G1332376; JOINED.
DR EMBL: M57503; G339727; -.
DR PIR: A31767; A31767.
DR PIR: B30574; B30574.
DR PIR: D30552; D30552.
DR PIR: JH0319; JH0319.
DR PIR: A37411; A37411.
DR PDB: 1HUN; 30-APR-94.
DR PDB: 1HUN; 30-APR-94.
DR MIM: 182284; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL; 3D-STRUCTURE.
FT SIGNAL 1 23
FT CHAIN 24 92
FT DISULFID 34 58
FT DISULFID 35 74
FT CONFLICT 6 74
FT CONFLICT 15 15
FT CONFLICT 20 20
FT CONFLICT 40 45
FT CONFLICT 56 56
FT CONFLICT 70 70
FT CONFLICT 80 80
FT STRAND 29 29
FT STRAND 33 33
FT HELIX 45 47
FT STRAND 50 53
FT STRAND 63 66
FT STRAND 72 75
FT TURN 77 78
FT HELIX 80 90
SQ SEQUENCE 92 AA; 10212 MW; F18E7AFD CRC32;

Query Match 88.6%; Score 39; DB 1; Length 92;
Best Local Similarity 66.7%; Pred. No. 3.82e+01;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 72 OVCADP 77
:::||||
QY 1 EICADP 6

RESULT 28
ID M1A_HUMAN STANDARD; PRT; 92 AA.
AC P10147;
DT 01-MAR-1989 (REL. 10, CREATED)
DT 01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE)
DT 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
DE MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR (MIP-1-ALPHA)
DE (TONSILLAR LYMPHOCYTE LD78 ALPHA PROTEIN) (GOS19-1 PROTEIN) (SIS-BETA)
DE (PAT 464.1) (SMALL INDUCIBLE CYTOKINE A3).
GN SCYA3 OR MIP1A
OS HOMO SAPIENS (HUMAN)
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 86223879.
RA OBARA K., FUKUDA M., MAEDA S., SHIMADA K.,
RL J. BIOCHEM. 99:885-894(1986).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 89140347.
RA ZIPPEL P.F., BAIR J., IRVING S.G., KELLY K., SIEBENLIST U.,
RL J. IMMUNOL. 142:1582-1590(1989).
RN [3]
RP SEQUENCE FROM N.A.
RX MEDLINE: 91103879.
RA BLUM S., FORSDYKE R.E., FORSDYKE D.R.,
RL DNA CELL BIOL. 9:589-602(1990).
RN [4]
RP SEQUENCE FROM N.A.
RX MEDLINE: 90287155.
RA NAKAO M., NOMIYAMA H., SHIMADA K.,
RL MOL. CELL. BIOL. 10:3646-3658(1990).
CC -1- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.
CC -1- INDUCTION: BY TPA OR PHA (TPA = 12-O-TETRADECANOYL PHORBOL-13 ACETATE (TUMOR PROMOTER); PHA = PHYTOHEMAGGLUTININ (T-CELL MITOGEN)).
CC -1- SIMILARITY: LD78-ALPHA AND -BETA ARE VERY CLOSELY RELATED.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
CC EMBL: D00044; D1000469; -.
DR EMBL: M23452; G188559; -.
DR EMBL: M25315; G602453; -.
DR EMBL: X03754; G758089; -.
DR EMBL: X04018; G34297; ALT-SEQ.
DR EMBL: M23178; G182847; -.
DR EMBL: D90144; G219906; -.
DR PIR: A24198; A24198.
DR PIR: A30574; A30574.
DR HSSP: P13236; 1HUN.
DR MIM: 182283; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 22
FT CHAIN 23 92
FT DISULFID 33 57
FT DISULFID 34 73
SQ SEQUENCE 92 AA; 10085 MW; C24DD919 CRC32;

Query Match 88.6%; Score 39; DB 1; Length 92;
Best Local Similarity 66.7%; Pred. No. 3.82e+01;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 71 OVCADP 76
:::||||
QY 1 EICADP 6

RESULT 29
ID M1IO_HUMAN STANDARD; PRT; 93 AA.
AC P16619;

01-AUG-1990 (REL. 15, CREATED)
01-AUG-1990 (REL. 15, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
TUMSILAR LYMPHOCYTE LD78 BETA PROTEIN PRECURSOR (GOS19-2 PROTEIN)
(PAT 464.2).
SCYA311 OR 464.2.
HOMO SAPIENS (HUMAN).
EUKARYOTA: METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
EUTHERIA; PRIMATES.
[1]
SEQUENCE FROM N.A.
RC TISSUE=BLOOD;
RX MEDLINE: 90287102.
IRYING S.G., ZIEPEL P.F., BAILE J., MCBRIDE O.W., MORTON C.C.,
RA BUD P.R., STEBENLIS U., KELLY K.,
RL NUCLEIC ACIDS RES. 18:3261-3270(1990).
[2]
SEQUENCE FROM N.A.
RX MEDLINE: 91103879.
BLUM S., FORSDYKE R.E., FORSDYKE D.R.,
RL DNA CELL BIOL. 9:589-602(1990).
[3]
SEQUENCE FROM N.A.
RX MEDLINE: 90287155.
NAKAO M., NOMIYAMA H., SHIMADA K.,
RA MOL. CELL. BIOL. 10:3646-3658(1990).
-1- SIMILARITY: 464.1 AND 464.2 ARE VERY CLOSELY RELATED.
-1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
DR EMBL: X52149; G296666; -.
DR EMBL: M24110; G182849; -.
DR EMBL: D90145; G219908; -.
DR PIR: B30908; B30908.
DR PIR: B30412; B30412.
DR PIR: B35673; B35673.
DR PIR: S10157; S10157.
DR HSSP: P13236; 1HUM.
DR MIM: 601395; -.
DR PROSITE: PS00472; SMALL CYTOKINES_CC; 1.
DR CYTOKINE; CHEMOTAXIS; SIGNAL.
KW SIGNAL 1 23
FT CHAIN 1 23
FT DISULFID 24 93 LD78 BETA / GOS19-2 / 464.2.
FT DISULFID 34 58 BY SIMILARITY.
FT DISULFID 35 74 BY SIMILARITY.
SQ SEQUENCE 93 AA; 10161 MW; 21EDDB04 CRC32;
Query Match 88.6%; Score 39; DB 1; Length 93;
Best Local Similarity 66.7%; Pred. No. 3.82e+01;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
DB 72 OVCADP 77
QY 1 EICADP 6
RESULT 30
ID MCPA BOVIN STANDARD: PRT: 99 AA.
AC P28291.
DT 01-DEC-1992 (REL. 24, CREATED)
DT 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1A PRECURSOR (MCP-1A) (MCP-1) (ACIDIC
DE SEMINAL FLUID PROTEIN).
OS BOS TAURUS (BOVINE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLIA.
RN [1]
RN SEQUENCE FROM N.A.
RC TISSUE=SEMINAL PLASMA;
RX MEDLINE: 92096117.
RA WEMPE F., HENSCHEN A., SCHEIT K.H.,
RL DNA CELL BIOL. 10:671-679(1991).
[2]

RP SEQUENCE FROM N.A.
RC TISSUE=SEMINAL PLASMA;
RX MEDLINE: 92181448.
RA WEMPE F., EINSPIANIER R., SCHEIT K.H.,
RL BIOCHEM. BIOPHYS. RES. COMMUN. 183:232-237(1992).
RN [3]
RN SEQUENCE FROM N.A.
RX MEDLINE: 94338337.
RA WEMPE F., KOHLMANN J.K., SCHEIT K.H.,
RL BIOCHEM. BIOPHYS. RES. COMMUN. 202:1272-1279(1994).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
DR EMBL: L32659; G624394; -.
DR EMBL: M84602; G163395; -.
DR PIR: A39296; A39296.
DR PIR: JC2336; JC2336.
DR HSSP: P13500; 1MCA.
DR PROSITE: PS00472; SMALL CYTOKINES_CC; 1.
DR CYTOKINE; CHEMOTAXIS; SIGNAL.
KW SIGNAL 1 23
FT CHAIN 1 23
FT MOD_RES 24 24
FT DISULFID 34 59 BY SIMILARITY.
FT DISULFID 35 75 BY SIMILARITY.
SQ SEQUENCE 99 AA; 11114 MW; C8F5821D CRC32;
Query Match 88.6%; Score 39; DB 1; Length 99;
Best Local Similarity 83.3%; Pred. No. 3.82e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
DB 73 EICADP 78
QY 1 EICADP 6

Search completed: Thu Apr 1 07:28:41 1999
Job time : 11 secs.

94 36 81.8 1041 14 002442 GENOME POLYPROTEIN [CO
95 36 81.8 1436 14 067726 NON-STRUCTURAL PROTEIN
96 36 81.8 1763 5 017901 C10C5.6 PROTEIN.
97 36 81.8 2219 5 023388 ZK1067.2.
98 36 81.8 2258 14 093128 RNAI POLYPROTEIN.
99 36 81.8 2258 14 055459 RNAI POLYPROTEIN.
100 36 81.8 2911 5 093442 K08F8.6 PROTEIN.
2.98e+02
2.98e+02

ALIGNMENTS

RESULT 1
ID 000626 PRELIMINARY: PRT: 93 AA.
AC 000626:
DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE MACROPHAGE-DERIVED CHEMOKINE PRECURSOR.
GN MDC OR A-152E5.1.
OS HOMO SAPIENS (HUMAN).
OC EURAROTIA; METAZOIA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RA GODISKA R., CHANTRY D., RAPORT C.J., SOZZANI S., ALLAVENA P.,
RA MANTOVANI A., GRAY P.W.;
RL J. EXP. MED. 185:0-0(0).
RN [2]
RP SEQUENCE FROM N.A.
RA CHANG M.S., MCNICH J., ELIAS III C., MANTHEY C.L., GROSSHANS D.,
RA MENG T., BOONE T., ANDREW D.P.;
RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [3]
RP SEQUENCE FROM N.A.
RA ADAMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRMANN J., MASON T.M.,
RA BRANDON R., KIM U.J., KERLAVAGE A.R., VENTER J.C.;
RT "Homo sapiens Chromosome 16 BAC clone CIT987SK-A-152E5.";
RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: U83171; G1931581; -;
DR EMBL: U83339; G2062425; -;
DR EMBL: AC004382; G3252820; -;
DR PFAM: PF00048; 118; 1.
KW SIGNAL.
FT SIGNAL.
FT CHAIN 25 93 POTENTIAL.
SQ SEQUENCE 93 AA; 10580 MW; 65E63D2 CRC32;
MACROPHAGE-DERIVED CHEMOKINE.
Query Match 100.0%; Score 44; DB 4; Length 93;
Best Local Similarity 100.0%; Pred. No. 6.18e+00;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 74 EICADP 79
|||||
QY 1 EICADP 6

RESULT 2
ID 054843 PRELIMINARY: PRT: 700 AA.
AC 054843:
DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CALPAIN 2 (80KDA M-CALPAIN SUBUNIT).
GN CAPN2 OR CALP80.
OS MUS MUSCULUS (MOUSE).
OC EURAROTIA; METAZOIA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCIUROGNATHI; MURIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-NEUROUS SYSTEM;
RA GLASS J.D., NASH N.R., DRY I., CULVER D., WESSELLINGH S.;
RL SUBMITTED (JUL-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AF015038; G2735951; -;

DR MGD: MG1:88264; CAPN2.
SQ SEQUENCE 700 AA; 79871 MW; 03C97160 CRC32;

Query Match 100.0%; Score 44; DB 11; Length 700;
Best Local Similarity 100.0%; Pred. No. 6.18e+00;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 80 EICADP 85
|||||

QY 1 EICADP 6

RESULT 3
ID 088430 PRELIMINARY: PRT: 92 AA.
AC 088430:
DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CC CHEMOKINE ABCD-1.
OS MUS MUSCULUS (MOUSE).
OC EURAROTIA; METAZOIA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
OC RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-LIVER;
RX MEDLINE: 98353531.
RA SCHMIDT C., PARDALI E., SALUSTO F., SPELETAS M., RUEDL C.,
RA SHIMIZU T., SEIDL T., ANDERSSON J., MELCHERS F., KOLINK A.G.,
RA SIDERAS P.;
RT "Activated murine B lymphocytes and dendritic cells produce a novel
RT CC chemokine which acts selectively on activated T cells.";
RL J. EXP. MED. 186:451-463(1998).
DR EMBL: AF052505; G3378116; -;
SQ SEQUENCE 92 AA; 10302 MW; BC7219A0 CRC32;

Query Match 97.7%; Score 43; DB 11; Length 92;
Best Local Similarity 83.3%; Pred. No. 1.03e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 74 DICADP 79
|||||

QY 1 EICADP 6

RESULT 4
ID 027064 PRELIMINARY: PRT: 64 AA.
AC 027064:
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
DE HYPOTHETICAL 7.1 KD PROTEIN.
GN MTH983.
OS METHANOBACTERIUM THERMOAUTOTROPHICUM.
OC ARCHAEA; EURYARCHAEOTA; METHANOBACTERIALES; METHANOBACTERIACEAE;
OC METHANOBACTERIUM.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-DELTA H;
RX MEDLINE: 98037514.
RA SMITH D.R., DOUCETTE-STAMM L.A., DELOUGHERY C., LEE H.-M., DUBOIS J.,
RA ALDREDE T., BASHIRZADEH R., BLAKELY D., COOK R., GILBERT R.,
RA HARRISON D., HOANG L., KEAGLE P., LTM W., POHIER B., QIU D.,
RA SPADAFORA R., VICARE R., WANG Y., WIERZBOWSKI J., GIBSON R., JIWANI N.,
RA CARUSO A., BUSH D., SAHER H., PATWELL D., PRAHARAR S., MCDUGALL S.,
RA SHIMER G., GOYAL A., PIETROVSKI S., CHURCH G.M., DANIELS C.J.,
RA MAO J.-I., RICE P., NOLLING J., REEVE J.N.;
RT "Complete genome sequence of Methanobacterium thermoautotrophicum
RT deltaH: functional analysis and comparative genomics.";
RL J. BACTERIOL. 179:7135-7155(1997).
DR EMBL: AE000872; G2622084; -;
KW HYPOTHETICAL PROTEIN.
SQ SEQUENCE 64 AA; 7098 MW; 9CF205BF CRC32;

Query Match 95.5%; Score 42; DB 1; Length 64;
 Best Local Similarity 83.3%; Pred. NO. 1.71e+01;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

DB 16 EICADP 21
 11111
 1 EICADP 6

RESULT 5
 ID 098158 PRELIMINARY; PRT; 95 AA.
 AC 098158; 012569;
 DT 01-FEB-1997 (TREMBLREL. 02, CREATED)
 DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
 DE 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 ORF K6.
 OS KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS.
 OC VIRUSES; DSDNA VIRUSES, NO RNA STAGE; HERPESVIRIDAE;
 OC GAMMAHERPESVIRINAE; RHADINOVIRUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA MEDLINE: 97094384.
 RA MOORE P.S., BASHOFF C., WEISS R.A., CHANG Y.;
 RT "Molecular mimicry of human cytokine and cytokine response pathway
 genes by KSHV.";
 RT SCIENCE 274:1739-1744(1996).
 RN [2]
 RP SEQUENCE FROM N.A.
 RA MEDLINE: 97121480.
 RA RUSSO J.J., BOHENKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
 RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
 RT "Nucleotide sequence of the Kaposi sarcoma-associated herpesvirus
 (HHV8).";
 RT PROC. NATL. ACAD. SCI. U.S.A. 93:14862-14867(1996).
 RN [3]
 RP SEQUENCE FROM N.A.
 RA RUSSO J.J., BOHENKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
 RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
 RT SUBMITTED (OCT-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [4]
 RP SEQUENCE FROM N.A.
 RA NICHOLAS J., RUVOLO V.R., BURNS W.H., SANDFORD G., WAN X., CIUFO D.,
 RA HENRICKSON S., GUO H.G., HAYWARD G.S., REITZ M.S.;
 RT SUBMITTED (NOV-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [5]
 RP SEQUENCE FROM N.A.
 RA RUSSO J.J., BOHENKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
 RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
 RT SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [6]
 RP SEQUENCE FROM N.A.
 RA MEDLINE: 97296220.
 RA NEIREL F., ALBRECHT J.C., FLECKENSTEIN B.;
 RT "Cell-homologous genes in the Kaposi's sarcoma-associated rhadinovirus
 human herpesvirus 8: determinants of its pathogenicity";
 RT J. VIROL. 71:4187-4192(1997).
 RN [7]
 RP SEQUENCE FROM N.A.
 RA SUN R., LIN S.-F., MILLER G.;
 RT SUBMITTED (SEP-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [8]
 RP SEQUENCE FROM N.A.
 RA EMBL: 074585; G1658273; -;
 DR EMBL: 093872; G2246546; -;
 DR EMBL: 071366; G3551763; -;
 DR PFAM: PF00048; 118; 1.
 KW HYPOTHETICAL PROTEIN.
 SQ SEQUENCE 95 AA; 10485 MW; 5283348D CRC32;

Query Match 93.2%; Score 41; DB 14; Length 95;
 Best Local Similarity 83.3%; Pred. NO. 2.81e+01;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

DB 74 QICADP 79

Query Match 93.2%; Score 41; DB 10; Length 258;
 Best Local Similarity 83.3%; Pred. NO. 2.81e+01;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

DB 46 EICADP 51
 11111
 1 EICADP 6

RESULT 7
 ID 077102 PRELIMINARY; PRT; 383 AA.
 AC 077102;
 DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
 DE 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 ORF PROPHENOL OXIDASE ACTIVATING ENZYME PRECURSOR.
 GN PP4E.
 OS MANDUCA SEXTA (TOBACCO HAWMOTH) (TOBACCO HORNWORM).
 OC EUKARYOTA; METAZOA; ARTIRODIA; TRACHEATA; HEXAPODA; INSECTA;
 OC PTERYGOTA; LEPIDOPTERA; SPHINGIDERA; SPHINGIDAE; SPHINGINAE; MANDUCA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA MEDLINE: 98445352.
 RA JIANG H., WANG Y., RANOST M.R.;
 RT "Pro-phenol oxidase activating proteinase from an insect, Manduca
 sexta: A bacteria-inducible protein similar to Drosophila easter";
 RT PROC. NATL. ACAD. SCI. U.S.A. 95:12220-12225(1998).
 RT EMBL: AF059728; G3746547; -;
 KW SIGNAL.
 FT CHAIN 1 19 POTENTIAL.
 FT SIGNAL 20 383 PROPHENOL OXIDASE ACTIVATING ENZYME.
 SQ SEQUENCE 383 AA; 41849 MW; B667688E CRC32;

Query Match 93.2%; Score 41; DB 5; Length 383;
Best Local Similarity 66.7%; Pred. No. 2.81e+01;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 205 DVCADP 210
:|||||
OY 1 EICADP 6

RESULT 8
ID 054567 PRELIMINARY; PRT; 1009 AA.
AC 054567;
DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE DOTO.
GN DOTO OR ICMB.
OS LEGIONELLA PNEUMOPHILA.
OC BACTERIA; PROTEOBACTERIA; GAMMA SUBDIVISION; LEGIONELLACEAE;
OC LEGIONELLA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE; 9811924.
RA VOGEL J.P., ANDREWS H.L., WONG S.K., ISBERG R.R.;
RT "Conjugative transfer by the virulence system of Legionella
pneumophila.";
RT SCIENCE 279:873-876(1998).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE; 9814705.
RA ANDREWS H.L., VOGEL J.P., ISBERG R.R.;
RT "Identification of linked Legionella pneumophila genes essential for
intracellular growth and evasion of the endocytic pathway.";
RT INFECT. IMMUN. 66:950-958(1998).
RN [3]
RP SEQUENCE FROM N.A.
RC STRAIN-PHILADELPHIA-1;
RA PURCELL M., SHUMAN H.A.;
RL SUBMITTED (FEB-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [4]
RP SEQUENCE FROM N.A.
RC STRAIN-PHILADELPHIA-1;
RX MEDLINE; 98132649.
RA SEGAL G., PURCELL M., SHUMAN H.A.;
RT "Host cell killing and bacterial conjugation require overlapping sets
of genes within a 22-kb region of the Legionella pneumophila genome.";
RT PROC. NATL. ACAD. SCI. U.S.A. 95:1669-1674(1998).
DR EMBL; AF026534; G2895283; -
DR EMBL; Y14948; E1251898; -
DR EMBL; Y15044; E1252195; -
SQ SEQUENCE 1009 AA; 112135 MW; 513EBAFE CRC32;

Query Match 93.2%; Score 41; DB 2; Length 1009;
Best Local Similarity 83.3%; Pred. No. 2.81e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 411 EICADP 416
:|||||
OY 1 EICADP 6

RESULT 9
ID 032439 PRELIMINARY; PRT; 283 AA.
AC 032439;
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE SERINE PROTEASE PRECURSOR.
GN SAM-P20.
OS STREPTOMYCES ALBOGRISEOLUS.
OC BACTERIA; FIRMICUTES; ACTINOBACTERIA; STREPTOMYCETES;
OC STREPTOMYCETACEAE; STREPTOMYCETES.

RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-S-3253;
RX MEDLINE; 97321869.
RA TADUCHI S., OGAWA T., ENDO T., MOMOSE H.;
RT "A gene homologous to the streptomycetes chymotrypsin-like protease
(SAM-P20) gene is tandemly located.";
RT BIOSCI. BIOTECHNOL. BIOCHEM. 61:909-913(1997).
RL EMBL; D86743; D1022640; -
DR PFAM; PF00089; trypsin; 1.
KW SIGNAL; PROTEASE.
FT SIGNAL 97
FT CHAIN 97
SQ SEQUENCE 283 AA; 28476 MW; 482039A6 CRC32;

Query Match 90.9%; Score 40; DB 2; Length 283;
Best Local Similarity 50.0%; Pred. No. 4.59e+01;
Matches 3; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 231 DVCADP 236
:|||||
OY 1 EICADP 6

RESULT 10
ID 045748 PRELIMINARY; PRT; 314 AA.
AC 045748;
DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE T05DA.2.
OS CAENORHADITIS ELEGANS.
OC EUAROTHA; METAZOA; NEMATODA; SECERNENTEA; RHADITIDA; RHADITIDAE;
OC RHADITIDAE; RHADITIDAE; RHADITIDAE; PELODERINAE; CAENORHADITIS.
RN [1]
RP SEQUENCE FROM N.A.
RA MCMURRAY A.;
RL SUBMITTED (OCT-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE; 94150718.
RA WILSON R., AINSCOUGH R., ANDERSON K., BAYNES C., BONEFIELD J.,
RA BURTON J., CONNELL M., COSEY T., COOPER J., COULSON A., CRAXTON M.,
RA DEAR S., DU Z., DURBIN R., FAVELLO A., FUTON L., GARDNER A., GREEN P.,
RA HANKINS T., HILLIER L., JER M., JOHNSTON L., JONES M., KERSHAW J.,
RA KIRSTEN J., LAISTER N., LATREILLE P., LIGHTNING J., LLOYD C.,
RA MCMURRAY A., MORTIMORE B., O'CALLAGHAN M., PARSONS J., PERCY C.,
RA RIKKEN L., ROOPRA A., SAUNDERS D., SHOWNKEEN R., SMALDON N., SMITH A.,
RA SONNHAMMER E., STADEN R., SUISTON J., THIRRY-MING J., THOMAS K.,
RA VANDIN M., VAUGHAN K., WATERSTON R., WATSON A., WEINSTOCK L.,
RA WILKINSON-SPROAT J., WOHLDMAN P.;
RT "2.2 Mb of contiguous nucleotide sequence from chromosome III of C.
elegans.";
RT NATURE 368:32-38(1994).
RL EMBL; Z81115; E1247209; -
SQ SEQUENCE 314 AA; 36587 MW; 0804815D CRC32;

Query Match 90.9%; Score 40; DB 5; Length 314;
Best Local Similarity 50.0%; Pred. No. 4.59e+01;
Matches 3; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 65 DICSEP 70
:|||||
OY 1 EICADP 6

RESULT 11
ID 054395 PRELIMINARY; PRT; 354 AA.
AC 054395; 053544;
DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
DT 01-FEB-1997 (TREMBLREL. 02, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CHYMOTRYPSIN-LIKE SERINE PROTEASE SALO PRECURSOR (EC 3.4.-.-).

OS STREPTOMYCES LIVIDANS.
OC BACTERIA; FIRMICUTES; ACTINOBACTERIA; STREPTOMYCETES.
OC STREPTOMYCETACEAE; STREPTOMYCETES.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-66;
RX MEDLINE; 95400022.
RA TAGUCHI S., ENDO T., NAOI Y., MOMOSE H.;
RT "Molecular cloning and sequence analysis of a gene encoding an
extracellular serine protease from Streptomyces lividans 66.";
RL BIOSCI. BIOTECHNOL. BIOCHEM. 59:1386-1388(1995).
CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
DR EMBL: D50081: G1742917:
PFAM: PF00089; trypsin. 1.
KW SIGNAL; HYDROLASE; SERINE PROTEASE; ZYMOGEN; PROTEASE.
FT PROPP ? 157 POTENTIAL.
FT SIGNAL 1 ? POTENTIAL.
FT CHAIN 158 354 CHYMOTRYPSIN-LIKE SERINE PROTEASE SALO.
SQ SEQUENCE 354 AA; 35439 MW; 0A21C044 CRC32;

Query Match 90.9%; Score 40; DB 2; Length 354;
Best Local Similarity 50.0%; Pred. No. 4.59e+01;
Matches 3; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 294 DVCAP 299
QY 1 EICADP 6
:::11:1

RESULT 12 PRELIMINARY; PRT; 552 AA.
ID P71835;
AC P71835;
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-NOV-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE HYPOTHETICAL 60.9 KD PROTEIN CY369.26.
GN MTCY369.26.
OS MYCOBACTERIUM TUBERCULOSIS.
OC BACTERIA; FIRMICUTES; ACTINOBACTERIA; MYCOBACTERIA; MYCOBACTERIACEAE;
OC MYCOBACTERIUM.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-H37RV;
RA MCLENNAN J., HARRIS D., BARRELL B.G., RAJANDREAM M.A.;
RT SUBMITTED (SEP-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -1- SIMILARITY: TO PEPTIDASE FAMILY S9A; ALSO KNOWN AS THE PROLYL
OLIGOPEPTIDASE FAMILY.
DR EMBL: Z80226: E266572:
PFAM: PF00326; Prolyl_oligopep; 1.
KW HYPOTHETICAL PROTEIN.
SQ SEQUENCE 552 AA; 60896 MW; 54F32B19 CRC32;

Query Match 90.9%; Score 40; DB 2; Length 552;
Best Local Similarity 83.3%; Pred. No. 4.59e+01;
Matches 5; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 312 EICDP 317
QY 1 EICADP 6
:::11:1

RESULT 13 PRELIMINARY; PRT; 724 AA.
ID O05748;
AC O05748;
DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE PTRB.
GN PTRB.
OS MYCOBACTERIUM LEPAE.
OC BACTERIA; FIRMICUTES; ACTINOBACTERIA; MYCOBACTERIA; MYCOBACTERIACEAE;
OC MYCOBACTERIUM.
RN [1]

RP SEQUENCE FROM N.A.
RA BADCOCK K., CHURCHER C.M.;
RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RA PARKHILL J., BARRELL B.G., RAJANDREAM M.A.;
RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [3]
RP SEQUENCE FROM N.A.
RX MEDLINE; 93188700.
RA EIGMEIER K., HONORE N., WOODS S.A., CAUDRON B., COLE S.T.;
RT "Use of an ordered cosmid library to deduce the genomic organization
of Mycobacterium lepreae.";
RL MOL. MICROBIOL. 7:197-206(1993).
DR EMBL: Z95151: E315055:
PFAM: PF00326; Prolyl_oligopep; 1.
SQ SEQUENCE 724 AA; 81361 MW; A862B88C CRC32;

Query Match 90.9%; Score 40; DB 2; Length 724;
Best Local Similarity 83.3%; Pred. No. 4.59e+01;
Matches 5; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 483 EICVP 488
QY 1 EICADP 6
:::11:1

RESULT 14 PRELIMINARY; PRT; 2404 AA.
ID O90733;
AC O90733;
DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE POLYPEPTIDE.
OS WHEAT YELLOW MOSAIC VIRUS.
OC VIRUSES; SSRNA POSITIVE-STRAND VIRUSES. NO DNA STAGE; POTYVIRIDAE.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE; 98301984.
RA NAMBA S., KASHIMAZAKI S., LU X., TAMURA M., TSUCHIZAKI T.;
RT "Complete nucleotide sequence of wheat yellow mosaic bymovirus
RT genomic RNAs.";
RL ARCH. VIROL. 143:631-643(1998).
DR EMBL: D86634: D1029708:
KW POLYPEPTIDE.
FT CHAIN 1 327 36K PROTEIN.
FT CHAIN 328 393 7K PROTEIN.
FT CHAIN 394 1052 73K PROTEIN.
FT CHAIN 1053 1583 60K PROTEIN.
FT CHAIN 1584 2111 59K PROTEIN.
FT CHAIN 2112 2404 32K PROTEIN.
SQ SEQUENCE 2404 AA; 269179 MW; C61FE7B CRC32;

Query Match 90.9%; Score 40; DB 14; Length 2404;
Best Local Similarity 66.7%; Pred. No. 4.59e+01;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 2001 DICAP 2006
QY 1 EICADP 6
:::11:1

RESULT 15 PRELIMINARY; PRT; 80 AA.
ID O14745;
AC O14745;
DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE ID78 ALPHA BETA PRECURSOR (FRAGMENT).
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]

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RP SEQUENCE FROM N.A.
RC TISSUE=BRAIN;
RA ISHIZUKA K., IGATA-YI R., NARUSE K., NAKASHIMA H., OHUCHI K.,
RA KATSURAI S., KIN Y., OHOTO Y., NOMIYAMA H., ITO M., MIURA R.,
RA MIYAKAWA T.;
RL SUBMITTED (AUG-1995) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: D63785; G961440; -
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
DR PFAM: PF00048; 118; 1.
KW SIGNAL.
FT SIGNAL 1 1
FT NON_TER <1 16
FT CHAIN 17 >80 POTENTIAL.
FT NON_TER 80 80 LD78 ALPHA BETA.
SQ SEQUENCE 80 AA; 8857 MW; 3887F1C6 CRC32;

Query Match
Best Local Similarity 66.7%; Score 39; DB 4; Length 80;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 65 QVQADP 70
OY 1 EICADP 6

RESULT 16
ID 000585 PRELIMINARY; PRT; 134 AA.
AC 000585;
DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE BETA CHEMOKINE EXODUS-2.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RA HROMAS R.A., GRAY P., KLEMSZ M., FIFE K., BROOMEYER H.;
RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
PN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 97400322.
RA HEDRICK J.A., ZLOTNIK A.;
RT "Identification and characterization of a novel beta chemokine
RT containing six conserved cysteines.";
RL J. IMMUNOL. 159:1589-1593(1997).
RN [3]
RP SEQUENCE FROM N.A.
RA HEDRICK J.A., ZLOTNIK A.;
RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [4]
RP SEQUENCE FROM N.A.
RA NAGIRA M., IMAI T., HIESHIMA K., KUSUDA J., RIDANPAA M., TAKAGI S.,
RA NISHIMURA M., KAKIZAKI M., NOMIYAMA H., YOSHIE O.;
RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: U88320; G2196920; -
DR EMBL: AF001979; G2624925; -
DR EMBL: AB002409; D1022673; -
DR PFAM: PF00048; 118; 1.
SQ SEQUENCE 134 AA; 14646 MW; FE86A239 CRC32;

Query Match
Best Local Similarity 88.6%; Score 39; DB 4; Length 134;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 73 EICADP 78
OY 1 EICADP 6

RESULT 17
ID 008688 PRELIMINARY; PRT; 640 AA.
AC 008688;

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DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CALPAIN 5 (CALPAIN-LIKE PROTEASE).
GN CAPNS OR NCL-3.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCIROGNATHI; MORIDAE; MORINAE; MOS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-BALB/C;
RX MEDLINE: 97480729.
RA DEAR T.N., MATEENA K., VINGRON M., BOEHM T.;
RT "A new subfamily of vertebrate calpains lacking a calmodulin-like
RT domain: implications for calpain regulation and evolution.";
RL GENOMICS 45:175-184(1997).
DR EMBL: Y10656; E300457; -
DR MGD: MGI:1100859; CAPNS.
DR PFAM: PF00168; C2; 1.
DR PFAM: PF00648; Cys_protease_2; 1.
DR PFAM: PF01067; Calpain_III; 1.
KW PROTEASE.
SQ SEQUENCE 640 AA; 72954 MW; 1B4E733F CRC32;

Query Match
Best Local Similarity 66.7%; Score 39; DB 11; Length 640;
Matches 4; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 56 DICDDP 61
OY 1 EICADP 6

RESULT 18
ID 056043 PRELIMINARY; PRT; 1192 AA.
AC 056043;
DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
DT 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
DE SEGMENT S2 P2.
OS RICE RAGGED STUNT VIRUS.
OC VIRUSES; DSRNA VIRUSES; REOVIRIDAE; ORYZAVIRUS.
RN [1]
RP SEQUENCE FROM N.A.
RA UPADHYAYA N.M., LI Z., RAMM K., YANG M., GELLATLY J.A., KOSTITRATANA W.,
RA GERLACH W.L., WATERHOUSE P.M.;
RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AF020335; G2921098; -
SQ SEQUENCE 1192 AA; 133080 MW; 6BD970E3 CRC32;

Query Match
Best Local Similarity 66.7%; Score 39; DB 14; Length 1192;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 135 QVQADP 140
OY 1 EICADP 6

RESULT 19
ID 020397 PRELIMINARY; PRT; 101 AA.
AC 020397;
DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE F4D12.10.
OS CAENORHABDITIS ELEGANS.
OC EUKARYOTA; METAZOA; NEMATODA; SECERNENTEA; RHABDITIA; RHABDITIDA;
OC RHABDITINA; RHABDITIDEA; RHABDITIDAE; PELODERINAE; CAENORHABDITIS.
RN [1]
RP SEQUENCE FROM N.A.
RA COLES L.;
RL SUBMITTED (DEC-1995) TO EMBL/GENBANK/DBJ DATA BANKS.

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RN [2]
RE SEQUENCE FROM N.A.
RX MEDLINE: 94150718.
RA WILSON R., AINSCOUGH R., ANDERSON K., BAYNES C., BERKS M., BONFIELD J.,
RA BURTON J., CONNELL M., COPESEY T., COOPER J., COULSON A., CRAXTON M.,
RA DEAR S., DU Z., DURBIN R., FAVELLO A., FULTON L., GARDNER A., GREEN P.,
RA HARKIN T., HILLIER L., JIER M., JOHNSTON L., JONES M., KERSHAW J.,
RA KIRSTEN J., LAISTER N., LATREILLE P., LIGHTNING J., LLOYD C.,
RA MCURRAY A., MORTIMORE B., O'CALLAGHAN M., PARSONS J., PERCY C.,
RA RIKKEN L., ROOPRA A., SAUNDERS D., SHOWNKEEN R., SMALDON N., SMITH A.,
RA SONNHAMMER E., STADEN R., SULSTON J., THIERRY-MIEG J., THOMAS K.,
RA VAUDIN M., VAUGHAN K., WATERSTON R., WATSON A., WEINSTOCK L.,
RA WILKINSON-SPOAT J., WOLDMAN P.,
RT "2.2 kb of contiguous nucleotide sequence from chromosome III of C.
RT elegans."
RL NATURE 368:32-38(1994).
DR EMBL: Z68298; E214752;
SQ SEQUENCE 101 AA; 11944 MW; 42F5A6B2 CRC32;

Query Match
Best Local Similarity 86.4%; Score 38; DB 5; Length 101;
Matches 5; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

DB 44 EICADP 49
OY 1 EICADP 6

RESULT 20
ID 061854 PRELIMINARY; PRT; 123 AA.
AC 061854;
DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE MAST CELL GROWTH FACTOR.
GN MGF.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCIROGNATHI; MORIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-(102/ELX3H /EL)F1; TISSUE-BRAIN;
RX MEDLINE: 97032534.
RA GRAY J., LOEBSTER J., NEUBAUER-KLAUS A., PRETSCH W., SCHMITT-JOHN T.,
RT "Molecular analysis of two new Steel mutations in mice shows a
RT transversion or an insertion."
RL MAMM. GENOME 7:843-846(1996).
DR EMBL: X95379; E220404;
FT INIT MET
FT NON_TER
SQ SEQUENCE 123 AA; 13892 MW; F3244130 CRC32;

Query Match
Best Local Similarity 86.4%; Score 38; DB 11; Length 123;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

DB 27 EICADP 32
OY 1 EICADP 6

RESULT 21
ID 029340 PRELIMINARY; PRT; 138 AA.
AC 029340;
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
DE HYPOTHETICAL 15.3 KD PROTEIN.
GN AF0922.
OS ARCHAEoglobus FULGIDUS.
OC ARCHAEI; EURYARCHAEOTA; ARCHAEoglobales; ARCHAEoglobaceae;
OC ARCHAEoglobus.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-VC-16 / DSM 4304 / ATCC 49558;

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RX MEDLINE: 98049343.
RA KLENK H.-P., CLAYTON R.A., TOMB J.-F., WHITE O., NELSON K.E.,
RA KETCHUM K.A., DODSON R.J., GWINN M., HICKEY E.K., PETERSON J.D.,
RA RICHARDSON D.L., KERLAVAGE A.R., GRAHAM D.E., KYRIDIS N.C.,
RA FLEISCHMANN R.D., QUACKENBUSH J., LEE N.H., SUTTON G.G., GILL S.,
RA KIRKNESS E.F., DOUGHERTY B.A., MCKENNEY K., ADAMS M.D., LOFTUS B.,
RA PETERSON S., REICH C.I., MCNEIL L.K., BADGER J.H., GLODEK A., ZHOU L.,
RA OVERBECK R., GOCAYNE J.D., WEIDMAN J.F., McDONALD L., UTTERACK T.,
RA COTTON M.D., SPRIGGS T., ARTICH P., KAINE B.P., SYKES S.M.,
RA SADOW P.W., D'ANDREA K.P., BOWMAN C., FUJII C., GARLAND S.A.,
RA MASON T.M., OLSEN G.J., FRASER C.M., SMITH H.O., WOESE C.R.,
RA VENTER J.C.;
RT "The complete genome sequence of the hyperthermophilic,
RT sulphate-reducing archaeon Archaeoglobus fulgidus."
RL NATURE 390:364-370(1997).
DR EMBL: AE001040; G2649686;
DR TIGR: AF0922;
KM HYPOTHETICAL PROTEIN.
SQ SEQUENCE 138 AA; 15252 MW; 51E6A718 CRC32;

Query Match
Best Local Similarity 86.4%; Score 38; DB 1; Length 138;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

DB 35 EICADP 39
OY 2 EICADP 6

RESULT 22
ID 005391 PRELIMINARY; PRT; 200 AA.
AC 005391;
DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE URF 7 PROTEIN (FRAGMENT).
OS SYNECHOCOCCUS SP. (STRAIN PCC 6716).
OC BACTERIA; CYANOBACTERIA; CHROCOCCALES; SYNECHOCOCCUS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-6716;
RX MEDLINE: 93371369.
RA VAN WALRAVEN H.S., LUTTER R., WALKER J.E.,
RT "Organization and sequences of genes for the subunits of ATP synthase
RT in the thermophilic cyanobacterium Synechococcus 6716."
RL BIOCHEM. J. 294:239-251(1993).
DR EMBL: X70433; G49237;
FT INIT MET
FT NON_TER
SQ SEQUENCE 200 AA; 22219 MW; AA0F314C CRC32;

Query Match
Best Local Similarity 86.4%; Score 38; DB 2; Length 200;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

DB 150 EICADP 155
OY 1 EICADP 6

RESULT 23
ID 064384 PRELIMINARY; PRT; 208 AA.
AC 064384;
DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE MAST CELL GROWTH FACTOR
(C-KIT LIGAND C-TERMINALLY TRUNCATED SECRETED FORM KL-SLD) (FRAGMENT).
GN MGF OR SL OR KL.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCIROGNATHI; MORIDAE; MURINAE; MUS.
RN [1]

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RP SEQUENCE FROM N.A.
RX MEDLINE; 92330001.
RA HUANG E.J., NOCKA K.H., BUCK J., BESMER P.;
RT "Differential expression and processing of two cell associated forms
  of the kit-ligand: KL-1 and KL-2.";
RL MOL. BIOL. CELL 3:349-362(1992).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE; 91160046.
RA FLAMNGAN J.G., CHAN D.C., LEDER P.;
RT "Transmembrane form of the kit ligand growth factor is determined by
  alternative splicing and is missing in the Sld mutant.";
RL CELL 64:1025-1035(1991).
DR EMBL; S40536; E59503; -.
DR EMBL; M64262; G198596; -.
DR MGD; MGI:96974; MGF.
FT NON_TER 208
SQ SEQUENCE 208 AA; 23222 MW; F3F54C53 CRC32;

Query Match
Best Local Similarity 86.4%; Score 38; DB 11; Length 208;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 27 EICGNP 32
QY 1 EICADP 6

RESULT 24
ID 064222 PRELIMINARY; PRT; 245 AA.
AC 064222;
DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE C-KIT LIGAND TRUNCATED TRANSMEMBRANE FORM KL-2 (FRAGMENT).
GN SL/STEEL.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCUROGNATHI; MORIDAE; MORINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE; 92330001.
RA HUANG E.J., NOCKA K.H., BUCK J., BESMER P.;
RT "Differential expression and processing of two cell associated forms
  of the kit-ligand: KL-1 and KL-2.";
RL MOL. BIOL. CELL 3:349-362(1992).
DR EMBL; S40534; E59502; -.
DR EMBL; S40534; E59502; -.
DR EMBL; S40534; E59502; -.
FT NON_TER 245
SQ SEQUENCE 245 AA; 27541 MW; 2611C70D CRC32;

Query Match
Best Local Similarity 86.4%; Score 38; DB 11; Length 245;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 27 EICGNP 32
QY 1 EICADP 6

RESULT 25
ID P97332 PRELIMINARY; PRT; 273 AA.
AC P97332;
DT 01-MAY-1997 (TREMBLREL. 03, CREATED)
DT 01-JUN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE MGF S1-3NEU
GN MGF S1-3NEU
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCUROGNATHI; MORIDAE; MORINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.

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RC STRAIN-102/EIAC3H/EIPI;
RA GRAW J., NEUBAUER-KLAUS, PRETSCH;
RL MUTAT. RES. GENOMICS 382:75-78(1997).
DR EMBL; Y10287; E1172508; -.
DR MGD; MGI:96974; MGF.
SQ SEQUENCE 273 AA; 30618 MW; 1934AAB6 CRC32;

Query Match
Best Local Similarity 86.4%; Score 38; DB 11; Length 273;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 27 EICGNP 32
QY 1 EICADP 6

RESULT 26
ID 062524 PRELIMINARY; PRT; 273 AA.
AC 062524;
DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE MGF S1-3NEU
GN MGF S1-3NEU
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCUROGNATHI; MORIDAE; MORINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RX STRAIN-C3H/EL; TISSUE-BRAIN;
RX MEDLINE; 97032534.
RA GRAW J., LOESTER J., NEUBAUER-KLAUS A., PRETSCH W., SCHMITT-JOHN T.;
RT "Molecular analysis of two new steel mutations in mice shows a
  transversion or an insertion.";
RL MAMM. GENOME 7:843-846(1996).
DR EMBL; X99322; E254164; -.
FT VARIANT 193 193 P -> L.
FT VARIANT 207 207 S -> A.
SQ SEQUENCE 273 AA; 30645 MW; 4A2BE512 CRC32;

Query Match
Best Local Similarity 86.4%; Score 38; DB 11; Length 273;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 27 EICGNP 32
QY 1 EICADP 6

RESULT 27
ID P71057 PRELIMINARY; PRT; 344 AA.
AC P71057; 008176;
DT 01-FEB-1997 (TREMBLREL. 02, CREATED)
DT 01-FEB-1997 (TREMBLREL. 02, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE HYPOTHETICAL 39.8 KD PROTEIN.
GN YVER.
OS BACILLUS SUBTILIS.
OC BACTERIA; FIRMICUTES; BACILLUS/CLOSTRIDIUM GROUP; BACILLACEAE;
OC BACILLUS.
RN [1]
RP SEQUENCE FROM N.A.
RX STRAIN-168TRP;
RA FABRET C., QUENTIN Y., CHAPAL N., GUISEPTI A., HAIECH J., DENIZOT F.;
RL SUBMITTED (AUG-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RA DENIZOT F.C.;
RL SUBMITTED (APR-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [3]
RP SEQUENCE FROM N.A.
RX STRAIN-168;
RX MEDLINE; 98044033.

```

RA KUNST F., OGASAWARA N., MOSER I., ALBERTINI A.M., ALLONI G.,
 RA AZEVEDO V., BERTERO M.G., BESSIERES P., BOLOTIN A., BORCHERT S.,
 RA BORNIS R., BOURISCH L., BRANS A., BRUN M., BRIGNEL S.C., BRON S.,
 RA BROUILLET S., BROUSCH C.V., CALDWELL B., CAPRANO V., CARTER N.M.,
 RA CHOI S.K., COGANI J.J., CONNERTON I.F., CUMMINGS N.J., DANIEL R.A.,
 RA DENIZOT F., DEVINE K.M., DUSTERHOFF A., EHRLICH S.D., EMERSON P.T.,
 RA ENTIAN K.D., ERRINGTON J., FABBET C., FERRARI E., FOUGER D., FRITZ C.,
 RA FUJITA M., FUJITA Y., FUWA S., GALIZZI A., GALLERON N., GIM S.T.,
 RA GLASER P., GOFFEAD A., GOLIGHTLY E.J., GRANDI G., GUSEPPI G.,
 RA GUY B.J., HAGA K., HAIECH J., HARWOOD C.R., HENAUT A., HILBERT H.,
 RA HOLZAPPEL S., HOSONO S., HULLO M.F., ITAYA M., JONES L., JORIS B.,
 RA KARAWA D., KASAHARA Y., KLAERER-BLANCHARD M., KLEIN C., KOBAYASHI Y.,
 RA KOETTER P., KONINGSTEIN G., KROCH S., KUWANO M., KRITIK K., LAPIDUS A.,
 RA LARDINOIS S., LABBER J., LAZAREVIC V., LEE S.M., LEVINE A., LIU H.,
 RA MASUDA S., MAELI C., MEIGUE C., MEDINA N., MELLADO R.P., MIDONO M.,
 RA MESTEL D., NAI S., NOBACK M., NOONE D., O'REILLY M., OGAWA K.,
 RA OGIMURA A., OUDEGA B., PARK S.H., PARRO V., POHL T.M., PORTERELLE D.,
 RA PORROLIK S., PRESCOTT A.M., PRESECAN E., PUJIC P., PURNELLE B.,
 RA RAPPORT G., REY M., REYNOLDS S., RIEGER M., RIVOLTA C., ROCKA E.,
 RA ROCHE B., ROSE M., SADATE Y., SATO T., SCANLAN E., SCHLEICH S.,
 RA SCHROETER R., SCOFFONE F., SEKIGUCHI J., SEKOWSKA A., SERO S.J.,
 RA SERROR P., SHIN B.S., SOLDO B., SOROKIN A., TACCONI E., TAKAGI T.,
 RA TAKAHASHI H., TAKEMARU K., TAKEUCHI M., TAKAKOSHI A., TANAKA T.,
 RA TERSTRA P., TOGNONI A., TOSATO V., UCHIYAMA S., VANDERBOEL M.,
 RA VANNIER F., VASSAROTTI A., VIARI A., WABUTTI R., WEDLER E., WEDLER H.,
 RA WEITZENEGGER T., WINTERS P., WIPAT A., YAMAMOTO H., YAMANE K.,
 RA YASOMOTO K., YATA K., YOSHIDA K., YOSHIKAWA H.F., ZUMSTEIN E.,
 RA YOSHIKAWA H., DANCHIN A.;
 RT "The complete genome sequence of the gram-positive bacterium *Bacillus*
 RT subtilis".
 RA NATURE 390:249-256(1997).
 RL [4]
 RN SEQUENCE FROM N.A.
 RC STRAIN=168;
 RA KUNST F., OGASAWARA N., YOSHIKAWA H., DANCHIN A.;
 RL SUBMITTED (NOV-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: 271928; E238665; -;
 DR EMBL: 294043; E313059; -;
 DR EMBL: 299121; E1186118; -;
 DR PFAM: PF00535; Glycos_transf_2; 1.
 KW HYPOTHETICAL PROTEIN.
 SQ SEQUENCE 344 AA: 39809 MW; 83034545 CRC32;

Query Match 86.4%; Score 38; DB 2; Length 344;
 Best Local Similarity 100.0%; Pred. No. 1.19e+02;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

DB 288 ICADP 292
 |||||
 QY 2 ICADP 6

RESULT 28
 ID 021805 PRELIMINARY; PRT: 369 AA.
 AC 021805;
 DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
 DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE R0787.15.
 OS CAENORHABDITIS ELEGANS.
 OC EUKARYOTA; METAZOA; NEMATODA; SECERNENTEA; RHABDITIA; RHABDITIDAE;
 OC RHABDITIDAE; RHABDITIDAE; PELODERINAE; CAENORHABDITIS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA HARRIS B.;
 RL SUBMITTED (JUL-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [2]
 RP SEQUENCE FROM N.A.
 AC MEDLINE: 94150718.
 RA WILSON R., AINSCOUGH R., ANDERSON K., BAYNES C., BERKS M., BONFIELD J.,
 RA BURTON J., CONNELL M., COPSEY T., COOPER J., COULSON A., CRAYTON M.,
 RA DEAR S., DU Z., DURBIN R., FAVELLO A., FULTON L., GARDNER A., GREEN P.,
 RA HAWKINS T., HILLIER L., JIER M., JOHNSTON L., JONES K., KERSHAW J.,

RA KIRSTEN J., LAISTER N., LATREILLE P., LIGHTNING J., LLOYD C.,
 RA MCURRAY A., MORTIMORE B., O'CALLAGHAN M., PARSONS J., PERCY C.,
 RA RIEKEN L., ROOPRA A., SANDERS D., SHAWKEEN R., SALLON N., SMITH A.,
 RA SONNHAMMER E., STADEN R., SULSTON J., THIERRY-MIEG J., THOMAS K.,
 RA VAUDIN M., VAUGHAN K., WATERSTON R., WATSON A., WEINSTOCK L.,
 RA WILKINSON-SPRAT J., WOHLDMAN P.;
 RT "2.2 Mb of continuous nucleotide sequence from chromosome III of *C.*
 RT elegans".
 RL NATURE 368:32-38(1994).
 DR EMBL: 275955; E253186; -;
 DR PFAM: PF00105; zfc4; 1.
 SQ SEQUENCE 369 AA: 41645 MW; E96BFCE1 CRC32;

Query Match 86.4%; Score 38; DB 5; Length 369;
 Best Local Similarity 66.7%; Pred. No. 1.19e+02;
 Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

DB 44 EICADP 49
 |||||
 QY 1 EICADP 6

RESULT 29
 ID 080378 PRELIMINARY; PRT: 433 AA.
 AC 080378;
 DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE 181 (FRAGMENT).
 GN 181-1D10.
 OS DROSOPHILA CAROTA (CARROT).
 OC EUKARYOTA; VIRIDIPHYTES; CHANOPHYTES/EMBRYOPHYTES; EMBRYOPHYTES;
 OC TRACHEOPHYTES; EUPHYLOPHYTES; SPERMATOPHYTES; MAGNOLIOPHYTES;
 RN [1]
 RP SEQUENCE FROM N.A.
 RA XU Z., UEDA K., MASUDA K., ITOH A., ONO M., INOUE M.;
 RT "A novel protein from carrot embryo".
 RL SUBMITTED (MAR-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: AB012703; D1033788; -;
 FT NON TER
 SQ SEQUENCE 433 AA: 50558 MW; 57D0CFDF CRC32;

Query Match 86.4%; Score 38; DB 10; Length 433;
 Best Local Similarity 100.0%; Pred. No. 1.19e+02;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

DB 398 ICADP 402
 |||||
 QY 2 ICADP 6

RESULT 30
 ID 042135 PRELIMINARY; PRT: 673 AA.
 AC 042135;
 DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
 DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE NA/MYO-INOSTITOL CO-TRANSPORTER.
 OS XENOPUS LAEVIS (AFRICAN CLAWED FROG).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; AMPHIBIA; BATRACHIA; ANURA;
 OC MESOBATRACHIA; PIPOIDEA; PIPOIDEA; XENOPODINAE; XENOPUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE=SMALL INTESTINE;
 RA NAGATA K.;
 RL SUBMITTED (OCT-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: AB008225; D1023825; -;
 DR PFAM: PF00474; SSF; 1.
 SQ SEQUENCE 673 AA: 74135 MW; AB030618 CRC32;

Query Match 86.4%; Score 38; DB 13; Length 673;
 Best Local Similarity 66.7%; Pred. No. 1.19e+02;

Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 347 EICGNP 352

Oy 1 EICADP 6

Search completed: Thu Apr 1 07:29:31 1999
Job time : 33 secs.

(21)

92	43	81.1	73	20	P99814	Interleukin-8.	7	58e+02
93	43	81.1	77	1	P90017	Human neutrophil acti	7	58e+02
94	43	81.1	77	3	R13168	(Ala IL-8)177 leukocyt	7	58e+02
95	43	81.1	93	27	R13168	Novel beta-chemokine	7	58e+02
96	43	81.1	97	13	R70795	Interleukin-8/NAP-1.	7	58e+02
97	43	81.1	99	2	P93631	Amino acid sequence o	7	58e+02
98	43	81.1	99	1	R05239	Human neutrophil chem	7	58e+02
99	43	81.1	620	23	W19855	Myeloperoxidase thermo	7	58e+02
100	43	81.1	620	22	W19855	Myeloperoxidase thermo	7	58e+02

ALIGNMENTS

RESULT 1
ID W13598 standard; peptide: 66 AA.

AC W13598;
DE 07-NOV-1997 (first entry)
KW Monocyte chemoattractant protein analogue MCP-1 (10-76).
KW Truncated monocyte chemoattractant protein-1; inhibitor;
KW receptor binding; anti-inflammatory; basophil; lymphocyte; allergy;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
KW Lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PT (LEWIS I).
PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Disclosure: Page 5; 27pp: English.
CC The present sequence represents an analogue, MCP-1 (10-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-9 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 66 AA;

Query Match 100.0%; Score 53; DB 24; Length 66;
Best Local Similarity 100.0%; Pred. No. 1.15e+02;

Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 46 kgkwyg 51
| | | | |
QY 1 KOKWVG 6

RESULT 2

ID W13599 standard; peptide: 67 AA.

AC W13599;
DE 07-NOV-1997 (first entry)
KW Monocyte chemoattractant protein analogue MCP-1 (11-76).
KW Truncated monocyte chemoattractant protein-1; inhibitor;
KW receptor binding; anti-inflammatory; basophil; lymphocyte; allergy;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
KW Lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PT (LEWIS I).

PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Disclosure: Page 5; 27pp: English.
CC The present sequence represents an analogue, MCP-1 (11-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-10 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 67 AA;

Query Match 100.0%; Score 53; DB 24; Length 67;
Best Local Similarity 100.0%; Pred. No. 1.15e+02;

Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 47 kgkwyg 52
| | | | |
QY 1 KOKWVG 6

RESULT 3

ID W13597 standard; peptide: 68 AA.

AC W13597;
DE 07-NOV-1997 (first entry)
KW Monocyte chemoattractant protein analogue MCP-1 (9-76).
KW Truncated monocyte chemoattractant protein-1; inhibitor;
KW receptor binding; anti-inflammatory; basophil; lymphocyte; allergy;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
KW Lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PT (LEWIS I).
PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Claim 7; Page 5; 27pp: English.
CC The present sequence represents an analogue, MCP-1 (9-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-8 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 68 AA;

Query Match 100.0%; Score 53; DB 24; Length 68;
Best Local Similarity 100.0%; Pred. No. 1.15e+02;

Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 48 kgkwyg 53
| | | | |
QY 1 KOKWVG 6

RESULT 4
ID R87678 standard; protein: 69 AA.
AC R87678;
DT 21-FEB-1996 (first entry)
DE des(2-8) MCP-1.
KM monocyte chemoattractant protein; MCP-1; mutant; restenosis;
OS Homo sapiens.
FH Key
FT modified_site 2..3
FT /note="amino acids 2-8 of the native protein have
FT been deleted between these residues"
FT disulfide_bond 4..29
FT disulfide_bond 5..45
FT WO9513295-A1.
PD 18-MAY-1995.
PF 07-NOV-1994: U12874.
PR 12-NOV-1993: US-152301.
PA (DAND) DANA FARBER CANCER INST INC.
PI Rollins B, Zhang YJ;
DR WPI: 95-215051/28.
PT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
PT capable of inhibiting the monocyte chemo-attractant activity of
PT endogenous MCP-1 and can be used to treat restenosis
PS Claim 4; Page 11; 22pp; English.
CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
CC that they inhibit the monocyte chemoattractant activity of endogenous
CC MCP-1, provided that the derivative has not been modified by the
CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
CC are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg
CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
CC acids 2-8. The present sequence is a specifically claimed human MCP-1
CC derivative based on the parent protein disclosed in Rollins, Molecular
CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC The peptides can be used to prevent restenosis, e.g. in patients
CC undergoing coronary artery angioplasty.
SQ Sequence 69 AA;

Query Match 100.0%; Score 53; DB 14; Length 69;
Best Local Similarity 100.0%; Pred. No. 1.15e+02;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 49 kqkwwg 54
|||
QY 1 KOKWVO 6

RESULT 5
ID W13596 standard; peptide: 69 AA.
AC W13596;
DT 07-NOV-1997 (first entry)
DE Monocyte chemoattractant protein analogue MCP-1 (8-76).
KM Truncated monocyte chemoattractant protein-1; inhibitor;
KM receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
KM chronic inflammatory disease; arthritis; arteriosclerosis;
KM lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995: 152141.
PR 19-JUN-1995: CA-152141.
PA (LEWIS I)
PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemo-attractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Claim 5; Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (8-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-7 of MCP-1, acts as an antagonist of MCP-1

CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 69 AA;

Query Match 100.0%; Score 53; DB 24; Length 69;
Best Local Similarity 100.0%; Pred. No. 1.15e+02;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 49 kqkwwg 54
|||
QY 1 KOKWVO 6

RESULT 6
ID R87676 standard; protein: 76 AA.
AC R87676;
DT 21-FEB-1996 (first entry)
DE (24-Arg) MCP-1.
KM monocyte chemoattractant protein; MCP-1; mutant; restenosis;
OS Homo sapiens.
FH Key
FT modified_site 24
FT /note="Arg in the native sequence is replaced by Phe"
FT disulfide_bond 11..36
FT disulfide_bond 12..52
FT WO9513295-A1.
PD 18-MAY-1995.
PF 07-NOV-1994: U12874.
PR 12-NOV-1993: US-152301.
PA (DAND) DANA FARBER CANCER INST INC.
PI Rollins B, Zhang YJ;
DR WPI: 95-215051/28.
PT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
PT capable of inhibiting the monocyte chemo-attractant activity of
PT endogenous MCP-1 and can be used to treat restenosis
PS Claim 5; Page 11; 22pp; English.
CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
CC that they inhibit the monocyte chemoattractant activity of endogenous
CC MCP-1, provided that the derivative has not been modified by the
CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
CC are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg
CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
CC acids 2-8. The present sequence is a specifically claimed human MCP-1
CC derivative based on the parent protein disclosed in Rollins, Molecular
CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC The peptides can be used to prevent restenosis, e.g. in patients
CC undergoing coronary artery angioplasty.
SQ Sequence 76 AA;

Query Match 100.0%; Score 53; DB 14; Length 76;
Best Local Similarity 100.0%; Pred. No. 1.15e+02;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 56 kqkwwg 61
|||
QY 1 KOKWVO 6

RESULT 7
ID R87680 standard; protein: 76 AA.
AC R87680;
DT 05-MAR-1996 (first entry)
DE Monocyte chemotactic activating factor for use as wound remedy.
KM monocyte chemotactic activating factor; MCAF; wound remedy.

OS Homo sapiens.
 PN W09507710-A1.
 PD 23-MAR-1995.
 PF 13-SEP-1994: J01512.
 PR 13-SEP-1993: JP-227385.
 PA (TORA) TORAY IND INC.
 PI Matsushima K, Naruto M;
 DR WPI: 95-131181/17.
 PT Wound treatment using monocytic chemotactic factor - has potent
 therapeutic effect on skin wounds and ulcers
 PS Disclosure; Page 12: 22pp; Japanese.
 CC The invention relates to a new remedy for curing wounds which, instead
 of comprising a growth factor, comprises a monocytic chemotactic
 activating factor (MCAF) or its variants or derivatives. The factor has
 CC potent effect on skin wounds and ulcers. The present sequence is human
 CC MCAF, the activity of which is exemplified as the new remedy.
 SQ Sequence 76 AA;

Query Match 100.0%; Score 53; DB 15; Length 76;
 Best Local Similarity 100.0%; Pred. No. 1.15e+02;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 56 kqkvwq 61
 |||||
 QY 1 KQKVVQ 6

RESULT 8
 ID R28660 standard; Protein; 76 AA.
 AC R28660;
 DT 24-MAR-1993 (first entry)
 DE MCF.
 KW Plasmid; monocytic chemotactic factor; MCF; translation;
 KW termination; terminator; initiation; ribosome binding site;
 KW RBS; promoter; tryptophan; repressor.
 OS Synthetic.
 PN W09219737-A.
 PD 12-NOV-1992.
 PF 27-APR-1992: J00550.
 PR 09-MAY-1991: JP-135950.
 PA (DAIN) DAINIPPON PHARM CO LTD.
 PI Fukui T, Matsuo N, Yamada M, Yamagishi J;
 DR WPI: 92-398864/48.
 DR N-PSDB: 030745-46.
 PT Prodn. of polypeptide(s) having monocytic chemotactic activity -
 PT using expression plasmids with E. coli elements and specific
 PT E.coli strains
 PS Claim 1; Page 48 + Page 36; 56pp; English.
 CC An expression plasmid, pHM483, for producing MCF(76) consisting
 CC of 76 amino acids was constructed. The prod. can be used for e.g.
 CC treating bacterial infectious diseases.
 SQ Sequence 76 AA;

Query Match 100.0%; Score 53; DB 5; Length 76;
 Best Local Similarity 100.0%; Pred. No. 1.15e+02;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 56 kqkvwq 61
 |||||
 QY 1 KQKVVQ 6

RESULT 9
 ID R26580 standard; Protein; 76 AA.
 AC R26580;
 DT 28-JAN-1993 (first entry)
 DE Sequence of bovine P6 protein.
 KW Monocyte chemoattractant; bovine P6-derivative; thrombosis; tumour;
 KW inflammation therapy.
 OS Bos taurus.
 PN DE412521-C.
 PD 03-SEP-1992.
 PF 31-JUL-1991: 125251.

PR 31-JUL-1991: DE-125251.
 PA (SCHAE) SCHAEFER & BRUEMME GMBH & CO KG.
 PI Gramm W, Lins E;
 DR WPI: 92-293438/36.
 PT Drug containing a bovine protein homologous to human MCP-1 - for
 PT treating inflammation, tumours, thrombosis, and immune reactions,
 PT also for diagnosis
 PS Claim 1; Page 3; 6pp; German.
 CC Poly(A)+RNA from bull seminal vesicles was used to prepare a cDNA in
 CC the expression vector lambda gtl1. 1.5 x 10(5) cDNA clones were
 CC screened with a polyclonal anti-p6 antiserum of monospecific
 CC immunoglobulin G and six positives were identified. The insert of a
 CC suitable cDNA clone, pH42, was cloned into pUC18 and sequenced.
 CC pH42 encodes the 11,114 Da precursor of p6. It is called Monocyte
 CC Chemoattractant (MCP-1), which is a homologue of human (h)MCP-1.
 CC There is 72% overall AA sequence homology to hMCP-1 with the signal
 CC peptide showing 100% and the central region showing 89% homology.
 SQ Sequence 76 AA;

Query Match 100.0%; Score 53; DB 5; Length 76;
 Best Local Similarity 100.0%; Pred. No. 1.15e+02;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 56 kqkvwq 61
 |||||
 QY 1 KQKVVQ 6

RESULT 10
 ID P90292 standard; peptide; 76 AA.
 AC P90292;
 DT 17-JAN-1990 (first entry)
 DE Peptide from human glioma cell line U-105MG.
 KW Glioma; leucocyte; chemotaxis; neoplasms.
 OS Human.
 FH Key
 FT modified_site 1 Location/Qualifiers
 FT /label= OTHER
 FT /note= "pyroglutamic acid"
 PN US7304234-A.
 PD 20-JUL-1989.
 PF 31-JAN-1989: 030423.
 PR 31-JAN-1989: US-304234.
 PA (USSH) US Dept. of Health and Human.
 PI Yoshimura T, Robinson E; Appella E; Leonard E.
 DR WPI: 89-263501/36.
 PT New peptide with specific chemotactic activity for monocytes - isolated
 PT from glioma or leucocyte cells, useful for treating infections and
 PT neoplasms.
 PS Disclosure; page 3; 46pp; English.
 CC Peptide is derived from glioma cell line U-105MG (ATCC CRL9932) or from
 CC leukocytes and has mol. wt. 8400. Used to treat infections and neoplasms.
 SQ Sequence 76 AA;

Query Match 100.0%; Score 53; DB 1; Length 76;
 Best Local Similarity 100.0%; Pred. No. 1.15e+02;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 56 kqkvwq 61
 |||||
 QY 1 KQKVVQ 6

RESULT 11
 ID R87677 standard; protein; 76 AA.
 AC R87677;
 DT 21-FEB-1996 (first entry)
 DE (3-Ala) MCP-1.
 KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
 KW angioplasty.
 OS Homo sapiens.
 FH key
 FT modified_site 3 Location/Qualifiers

FT disulfide_bond 11..36 /note="Asp in the native sequence is replaced by Ala"
 FT disulfide_bond 12..52
 PN W09513295-A1.
 PD 18-MAY-1995.
 PF 07-NOV-1994: U12874.
 PR 12-NOV-1993: US-152301.
 PA (DAND) DANA FARBER CANCER INST INC.
 PI Rollins B, Zhang YJ;
 DR WPI: 95-215051/28.
 PT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
 capable of inhibiting the monocyte chemo-attractant activity of
 PT endogenous MCP-1 and can be used to treat restenosis
 PS Claim 6, Page 11, 22pp; English.
 CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
 that they inhibit the monocyte chemoattractant activity of endogenous
 MCP-1, provided that the derivative has not been modified by the
 CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
 are: (1) substitution of 28-Tyr by aspartate; (2) substitution of 24 Arg
 by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
 acids 2-8. The present sequence is a specifically claimed human MCP-1
 CC derivative based on the parent protein disclosed in Rollins, Molecular
 CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
 CC The peptides can be used to prevent restenosis, e.g. in patients
 CC undergoing coronary artery angioplasty.
 SO Sequence 76 AA;

Query Match 100.0%; Score 53; DB 14; Length 76;
 Best Local Similarity 100.0%; Pred. No. 1.15e+02;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 56 kqkvwg 61
 111111
 QY 1 KOKWVQ 6

RESULT 12
 ID R87675 standard; protein: 76 AA.
 AC R87675;
 DT 21-FEB-1996 (first entry)
 DE (28-Asp) MCP-1.
 KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
 KM angioplasty.
 OS Homo sapiens.
 FH Key
 FT modified_site Location/Qualifiers
 FT 28 /note="Tyr in the native sequence is replaced by Asp"
 FT disulfide_bond 11..36
 FT disulfide_bond 12..52
 PN W09513295-A1.
 PD 18-MAY-1995.
 PF 07-NOV-1994: U12874.
 PR 12-NOV-1993: US-152301.
 PA (DAND) DANA FARBER CANCER INST INC.
 PI Rollins B, Zhang YJ;
 DR WPI: 95-215051/28.
 PT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
 capable of inhibiting the monocyte chemo-attractant activity of
 PT endogenous MCP-1 and can be used to treat restenosis
 PS Claim 3, Page 11, 22pp; English.
 CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
 that they inhibit the monocyte chemoattractant activity of endogenous
 MCP-1, provided that the derivative has not been modified by the
 CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
 are: (1) substitution of 28-Tyr by aspartate; (2) substitution of 24 Arg
 by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
 acids 2-8. The present sequence is a specifically claimed human MCP-1
 CC derivative based on the parent protein disclosed in Rollins, Molecular
 CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
 CC The peptides can be used to prevent restenosis, e.g. in patients
 CC undergoing coronary artery angioplasty.
 SO Sequence 76 AA;

Query Match 100.0%; Score 53; DB 14; Length 76;
 Best Local Similarity 100.0%; Pred. No. 1.15e+02;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 56 kqkvwg 61
 111111
 QY 1 KOKWVQ 6

RESULT 13
 ID W09374 standard; Protein: 76 AA.
 AC W09374;
 DT 21-MAR-1997 (first entry)
 DE Monocyte chemotactic protein 1.
 KW Human; monocyte chemoattractant protein; antisense; inhibition;
 KM mononuclear cell; lymphocyte; macrophage; smooth muscle cell;
 KW vascular restenosis.
 OS Homo sapiens.
 FH Key
 FT Location/Qualifiers
 FT misc_difference 1 /note="encoded by codon CAG"
 FT misc_difference 51 /note="encoded by codon AUG"
 FT misc_difference 65 /note="encoded by codon CAC"
 PN US5571713-A.
 PD 05-NOV-1996.
 PF 22-OCT-1992: 965678.
 PR 22-OCT-1992: US-965678.
 PR 27-MAR-1994: US-250958.
 PA (UNM) UNIV MICHIGAN, Strieter RM;
 PI Kunkel SL, Lyle LR, Strieter RM;
 DR N-PSDB: T48092.
 PT Anti-sense Monocyte Chemotactic Protein-1 oligo:nucleotide(s) -
 useful for therapy or diagnosis of restenosis, etc.
 PS Disclosure; Column 13-14; 16pp; English.
 CC This is the amino acid sequence of the human monocyte chemoattractant
 CC protein (MCP)-1, a member of the C-C chemokine family. MCP-1 is a potent
 CC stimulator of monocyte chemotaxis and is produced by injured vascular
 CC smooth cells thus attracting monocytes and macrophages which infiltrate
 CC the injured area and release growth factor. This causes proliferation of
 CC the vascular smooth cells resulting in restenosis. The gene sequence can
 CC be used to generate antisense sequences e.g. T48093-7, which can be used
 CC to inhibit in vitro MCP-1 prodn. by mononuclear cells e.g. lymphocytes or
 CC macrophages, or smooth muscle cells, esp. in order to prevent vascular
 CC restenosis.
 SO Sequence 76 AA;

Query Match 100.0%; Score 53; DB 20; Length 76;
 Best Local Similarity 100.0%; Pred. No. 1.15e+02;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 56 kqkvwg 61
 111111
 QY 1 KOKWVQ 6

RESULT 14
 ID W1131 standard; protein: 76 AA.
 AC W1131;
 DT 10-JUN-1997 (first entry)
 DE Mature human monocyte chemoattractant protein-1 (MCP-1).
 KW MCP-1; mature chemoattractant protein-1; cytokine; interleukin-8;
 KW IL-8; neutrophil activating peptide; labeling; imaging; targeting;
 KW radionuclide; infection; inflammation; neoplasm; atherosclerotic lesion;
 KW restenosis.
 OS Homo sapiens.
 FH Key
 FT Location/Qualifiers
 FT misc_difference 1 /note="X= any amino acid"
 FT FT
 PN US5605671-A.
 PD 23-FEB-1997.

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PF 05-OCT-1992: 956862.
PR 05-OCT-1992: US-956863.
PR 05-OCT-1992: US-956862.
PR 29-APR-1994: US-235659.
PA (MCM ) MALLINCKRODT MEDICAL INC.
PA (UNMI ) UNIV MICHIGAN.
PI Kunkel SL, Lyle LR, Strieter RM;
DR WPI: 97-153541/14.
PT Radio:labelling neutrophil-activating peptide(s) - for imaging
PS Targeted delivery of radioactive agent
CC Example 10: Column 19-20: 15pp: English.
CC W1131 represents mature human monocyte chemotactant protein-1
CC (MCP-1). MCP-1 was radiolabeled and used in a method for
CC imaging a target site in vivo in an animal. Labeled MCP-1 was allowed
CC to accumulate at a target site (having MCP-1 receptors) in the animal
CC and detected so as to image the target site. Any Cys-Cys or Cys-Xaa-Cys
CC chemokine carrying either iodine-123 or iodine-131 can be used in the
CC method. Especially preferred is neutrophil activating peptide-2 (NAP-2)
CC which recognises interleukin-8 receptors and is labelled with
CC technetium-99m, indium-111, copper-62, rhenium-186 or rhenium-188.
CC The method can be used for imaging a site of infection, inflammation,
CC neoplasm, atheromatous lesion or restenosis.
SQ Sequence 76 AA:

Query Match 100.0%; Score 53; DB 21; Length 76;
Best Local Similarity 100.0%; Pred. No. 1.15e+02;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 56 kqkvwg 61
| | | | |
QY 1 KQKWWQ 6

RESULT 15
ID R53398 standard; Protein; 76 AA.
AC R53398;
DT 15-DEC-1994 (first entry)
DE Sense MCP-1.
KW Antisense; RNA; DNA; monocyte chemotactic protein-1; MCP-1;
KW radionuclide; vascular restenosis; alpha; beta; emitting isotope;
KW diagnosis; monocytes; vascular injury.
OS Mammalian.
FH Key location/Qualifiers
FT misc_difference 1 /note="Unspecified amino acid"
FT PN W09409128-A.
PD 28-APR-1994.
PF 20-OCT-1993: U10074.
PR 22-OCT-1992: US-965678.
PA (MCM ) MALLINCKRODT MEDICAL INC.
PI Lyle LR;
DR WPI: 94-151314/18.
PT Anti-sense monocyte chemotactic protein-1 oligo:nucleotide(s) and
PT peptide(s) - is used for inhibiting, treating or imaging areas of
PT vascular restenosis or potential restenosis
PS Disclosure: Page 5: 42pp: English.
CC The sequences given in R53398-99 represent sense and antisense
CC monocyte chemotactic protein-1 (MCP-1) respectively. These
CC oligonucleotides may be labelled with a radionuclide and use
CC therapeutically for the treatment of vascular restenosis.
CC Radiolabelled antisense MCP-1 compounds may be constructed using high
CC energy alpha or beta emitting isotopes rather than the gamma
CC emitters cutamally used for diagnostic purposes. Antisense MCP-1
CC compounds inactivate MCP-1 or inhibit production of MCP-1 so that
CC monocytes are not attracted to the area of vascular injury and
CC proliferation of vascular cells is inhibited.
SQ Sequence 76 AA:

Query Match 100.0%; Score 53; DB 10; Length 76;
Best Local Similarity 100.0%; Pred. No. 1.15e+02;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 56 kqkvwg 61

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QY 1 KQKWWQ 6
| | | | |

RESULT 16
ID R66859 standard; Protein; 77 AA.
AC R66859;
DT 20-MAR-1996 (first entry)
DE Mature MCP-1.
KW Antisense; monocyte chemotactic protein-1; MCP-1;
KW "C-C" family; chemotactant cytokine; chemokine; stimulation;
KW monocyte; chemotaxis; vascular smooth muscle cell; macrophage;
KW proliferation; restenosis; balloon angioplasty.
OS Homo sapiens.
PN W09519167-A1.
PD 20-JUL-1995.
PF 13-JAN-1995: U00605.
PR 14-JAN-1994: US-182917.
PA (MCM ) MALLINCKRODT MEDICAL INC.
PI Lyle LR, Thomas-Miller B;
DR WPI: 95-263703/34.
DR N-PSDB: T03528.
PT New anti-sense oligo:nucleotide(s) and peptide(s) for inhibiting
PT restenosis - are directed against C-C family cytokine(s) such as
PT monocyte chemotactic protein, opt. radio:labelled for therapy or
PT imaging
PS Disclosure: Page 5: 50pp: English.
CC This sequence represents the mature form of monocyte chemotactic
CC protein-1 (MCP-1). MCP-1 is a member of the "C-C" family of
CC chemotactant cytokines or chemokines. It is a potent stimulator
CC of monocyte chemotaxis and has an extremely high degree of specificity
CC for this cell type. MCP-1 is produced by injured vascular smooth muscle
CC cells and attracts the monocytes and macrophages which infiltrate the
CC area, releasing growth factors and resulting in proliferation of vascular
CC smooth muscle and restenosis. Nucleic acid molecules which are antisense
CC to the MCP-1 mRNA may be used to inhibit translation of MCP-1 and so may
CC be useful for inhibiting vascular restenosis, partic. following balloon
CC angioplasty or a related process. The molecule may be radiolabelled to
CC increase its therapeutic effect or for imaging areas of potential
CC restenosis.
SQ Sequence 77 AA:

Query Match 100.0%; Score 53; DB 15; Length 77;
Best Local Similarity 100.0%; Pred. No. 1.15e+02;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 57 kqkvwg 62
| | | | |
QY 1 KQKWWQ 6

RESULT 17
ID R70800 standard; Protein; 99 AA.
AC R70800;
DT 29-AUG-1995 (first entry)
DE Chemotactant protein MCP-1.
KW MCP-1; chemotactant; heparanase; heparin; heparan sulfate;
KW arthritis; restenosis; cancer; wound healing.
OS Homo sapiens.
PN W09504158-A.
PD 09-FEB-1995.
PF 26-JUL-1994: U06207.
PR 29-JUL-1993: US-099866.
PR 13-OCT-1993: US-136117.
PA (UPJO ) UPJOHN CO.
PI Hoogwerf AJ, Ledbetter SR;
DR WPI: 95-082239/11.
DR N-PSDB: Q85370.
PT Screening for cpds. with anti-heparanase activity - by detecting
PT inhibition of heparin or heparan sulphate degradation,
PT potentially useful for treating arthritis, restenosis, cancer.
PS Claim 13: Page 49: 60pp: English.
CC Purified heparanases, prepared under reducing conditions and

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CC activated with transglutaminase, are given in R70786-804. Most
 CC are prepared by reverse transcription of mRNA from activated human
 CC leukocytes, then cloning of the cDNA into pVL192 baculovirus
 CC vector, and expression in Sf9 cells in the presence of reduced
 CC glutathione and dithiothreitol.
 SQ Sequence 99 AA;

Query Match 100.0%; Score 53; DB 13; Length 99;
 Best Local Similarity 100.0%; Pred. No. 1.15e+02;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 79 kqkwyg 84
 |||||
 Qy 1 KQKWQ 6

RESULT 18
 ID R26581 standard; Protein; 99 AA.
 AC R26581;

DI 28-JAN-1993 (first entry)
 DE Sequence of P6 precursor protein.
 KM Monocyte chemoattractant; bovine P6-derivative; thrombosis; tumour;
 KW inflammation therapy.
 OS Bos taurus.

FN Key peptide
 FT peptide
 FT DE4125251-C.
 PN 03-SEP-1992.
 PD 31-JUL-1991; 125251.
 PR 31-JUL-1991; DE-125251.
 PA (SCHN-) SCHAEFER & BROEMMER GMBH & CO KG.
 PI Gram W, Lins E;
 DR WPI; 92-293438/36.
 DR N-PSDB; Q27946.

PT Drug containing a bovine protein homologous to human MCP-1 - for
 PT treating inflammation, tumours, thrombosis, and immune reactions,
 PT also for diagnosis
 PS Disclosure: Page 4; 6pp; German.
 CC Poly(A)-RNA from bull seminal vesicles was used to prepare a cDNA in
 CC the expression vector lambda gtl1. 1.5 x 10(5) cDNA clones were
 CC screened with a polyclonal anti-P6 antiserum of monospecific
 CC immunoglobulin G and six positives were identified. The insert of a
 CC suitable cDNA clone, pK42, was cloned into pUC18 and sequenced.
 CC pK42 encodes the 11,114 Da precursor of P6. It is called Monocyte
 CC Chemoattractant (bmcp-1), which is a homologue of human (h)MCP-1.
 CC There is 72% overall AA sequence homology to hMCP-1 with the signal
 CC peptide showing 100% and the central region showing 89% homology.
 SQ Sequence 99 AA;

Query Match 100.0%; Score 53; DB 5; Length 99;
 Best Local Similarity 100.0%; Pred. No. 1.15e+02;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 79 kqkwyg 84
 |||||
 Qy 1 KQKWQ 6

RESULT 19
 ID R73914 standard; Protein; 99 AA.
 AC R73914;

DI 05-DEC-1995 (first entry)
 DE Human monocyte chemoattractant factor hMCP-1.
 KM Human monocyte chemoattractant factor; hMCP-1; chemokine; vaccine;
 KW meningitis related homologous antigenic sequence; MRHS; RV-1;
 KM immunosay; diagnosis; treatment; prophylactic; bacterial;
 KM vital.
 OS Homo sapiens.
 PN W09509332-A.
 PD 06-APR-1995.
 PF 28-SEP-1994; CA0516.
 PR 28-SEP-1993; US-127499.

PA (SHAR/) SHARMA L R.
 PA (VALS/) VAN ALSTYNE D.
 PI Sharma LR, Van Alstyne D;
 DR WPI; 95-147431/19.
 PT New peptide(s) and corresp. antibodies for the treatment of
 PT meningitis - the peptide(s) corresp. to homologous antigenic
 PT sites on bacterial and viral agents and on chemokine(s), used for
 PT detecting and preventing meningitis
 PS Claim 47; Fig 8/10; 98pp; English.
 CC It contains the meningitis related antigenic sequences (MRHS) claimed
 CC R73914 is the chemokine Human monocyte chemoattractant factor hMCP-1.
 CC It contains the meningitis related antigenic sequences (MRHS) claimed
 CC in R73895 and R73907, which are recognised by a monoclonal antibody
 CC from the hybridoma Rubella virus (RV)-1. The claimed MRHS peptides
 CC may be used in immunoassays to diagnose the presence of bacterial
 CC and/or viral meningitis agents in a sample, or in prophylactic and
 CC therapeutic meningitis treatments. The peptides may also be used as
 CC vaccines against meningitis.
 CC NB: Identified by matching corresponding MRHS peptides.
 SQ Sequence 99 AA;

Query Match 100.0%; Score 53; DB 14; Length 99;
 Best Local Similarity 100.0%; Pred. No. 1.15e+02;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 79 kqkwyg 84
 |||||
 Qy 1 KQKWQ 6

RESULT 20
 ID R06398 standard; Protein; 99 AA.
 AC R06398;

DI 14-DEC-1990 (first entry)
 DE Human MCF precursor.
 KM Monocyte chemoattractant factor; antibacterial; antitumour; cancer.
 OS Homo sapiens.

FN Key
 FT protein
 FT misc_difference 24.99
 FT /label-mature MCF
 FT /note-Claim 1*
 FT misc_difference 76
 FT /label-A or T

PN W09007863-A.
 PD 26-JUL-1990.
 PF 02-JAN-1990; U00004.
 PR 01-JAN-1989; JP-000065.
 PR 03-FEB-1989; JP-026438.
 PA (USDC) US SEC OF COMMERCE.
 PI Fututani Y, Fukui T, Junichi Y, Masaaki Y, Matsushima K;
 PI Oppenheim J;
 DR WPI; 90-253802/33.
 DR P-PSDB; R06398.
 PT Human monocyte chemoattractant factor type polypeptide and DNA
 PT encoding it - useful as antibacterial and antitumour agents.
 PS Claim 2; Page 25; 27pp; English.
 CC The sequence was deduced from the DNA sequence determined from
 CC three recombinant plasmids, pMCF7, pMCF25 and pMCF29 which
 CC were isolated from a cDNA library prep. from RNA extracted from
 CC human promyelocytic leukaemia cell line, HL-60 (ATCC CCL-240).
 CC vectors. In plasmids pMCF7 and pMCF29 bases 105 and 226 were
 CC T and G resp. In pMCF25 they were C and A resp. The AA at posn.
 CC 76 of the precursor protein is therefore not determined and may be
 CC either Ala or Thr. The protein may be produced by recombinant
 CC DNA techniques in E. coli, and is useful as a drug for treatment of
 CC certain bacterial infections and cancers.
 SQ Sequence 99 AA;

Query Match 100.0%; Score 53; DB 2; Length 99;
 Best Local Similarity 100.0%; Pred. No. 1.15e+02;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 79 kqkwyg 84
 |||||

QY 1 KQKVVQ 6

RESULT 21

ID P95387 standard; protein; 99 AA.

AC P95387;

DE 25-JUL-1989 (first entry)

DE Human monocytic chemo-attractant peptide-1.

KM Human monocytic chemo-attractant peptide; inflammatory disease; neoplasms.

OS Homo sapiens.

FT Key

FT Location/Qualifiers

FT 24..99

FT /product=MCP-1

PN US7330446-A.

PD 25-JUL-1989;

PF 30-MAR-1989; 330446.

PR 30-MAR-1989; US-330446.

PA (USSH) US Dept. Health and Human.

PI Yoshimura T, Robinson EA, Appella E, Leonard EJ;

DR WPI: 89-300683/41.

DR N-PSDB; N91337.

PT Human derived monocytic chemo-attractant peptide prods. - obtd. from human

PT glioma cell line U-105MG or peripheral blood mononuclear leukocytes.

PS Disclosure; fig 2; 66pp; English.

CC This is a human-derived monocyte chemo-attractant peptide (MCP-1) sequence

CC MCP-1 exhibits optimal chemotactic activity at a concn. of 1nM and has a

CC mol. mass of c.a. 8,400 D. MCP-1 can be used for treating infection of

CC inflammatory disease, or for the control of neoplasms by accumulation of

CC monocytes at the site of the infection. The corresp. DNA is obtd. by

CC chemical synthesis, by screening reverse transcripts of mRNA from

CC purified blood leukocytes or cell cultures of eg U-373 MG or KMG-5.

SQ Sequence 99 AA;

Query Match 100.0%; Score 53; DB 2; Length 99;

Best Local Similarity 100.0%; Pred. No. 1.15e+02;

Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 79 kqkvvq 84

QY 1 KQKVVQ 6

RESULT 22

ID R28663 standard; protein; 99 AA.

AC R28663;

DE 24-MAR-1993 (first entry)

DE MCF.

KM plasmid; monocytic chemotactic factor; MCF; translation;

KM termination; terminator; initiation; ribosome binding site;

KM RBS; promoter; tryptophan; repressor.

OS Synthetic.

FT Key

FT Location/Qualifiers

FT peptide 1..23

FT /label= sig_peptide

FT protein 24..99

FT /label= mat_protein

PN W09219737-A.

PD 12-NOV-1992.

PF 27-APR-1992; J00550.

PR 09-MAY-1991; JP-135950.

PA (DAIN) DAINIPPON PHARM CO LTD.

PI Fukui T, Matsuo N, Yamada M, Yamagishi J;

DR WPI: 92-398864/48.

DR N-PSDB; Q30748.

PT Prodn. of polypeptide(s) having monocytic chemotactic activity -

PT using expression plasmids with E. coli elements and specific

PT E. coli strains

PS Disclosure; Page 43-44; 56pp; English.

CC An expression plasmid, pMCF76 for producing MCF(76) consisting

CC of 76 amino acids was constructed. DNA encoding MCF(76) was

CC prepd. using a recombinant plasmid pMCF7.

SQ Sequence 99 AA;

Query Match 100.0%; Score 53; DB 5; Length 99;

Best Local Similarity 100.0%; Pred. No. 1.15e+02;

Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 79 kqkvvq 84

QY 1 KQKVVQ 6

RESULT 23

ID R85300 standard; protein; 632 AA.

AC R85300;

DE 14-APR-1996 (first entry)

DE Arabidopsis pathogen resistance gene RPP5 protein.

KM Pathogen resistant; RPP5; tomato; C.fulvum; Avr 4; Avr 9; fungal;

OS Arabidopsis sp.

PN W09531564-A2.

PD 23-NOV-1995.

PF 11-MAY-1995; G01075.

PR 11-MAY-1994; GB-009394.

PR 23-DEC-1994; WO-G02812.

PR 31-MAR-1995; GB-006658.

PR 07-APR-1995; GB-007232.

PA (GATS-) GATSBY CHARITABLE FOUND.

PI Hammond-Kosack KE, Jones DA, Jones JDG;

DR WPI: 96-010949/01.

DR N-PSDB; T06308.

PT Increasing plant pathogen resistance by induction of variegation -

PT may lead to acquired resistance to a broad range of pathogens.

PS Disclosure; Page 89-90; 131pp; English.

CC R85300 is the Arabidopsis pathogen resistance gene RPP5 protein. In a

CC new method the RPP5 gene is expressed highly in genetic constructs which

CC may be used to impart a broad range of pathogen resistance, by induction

CC of variegation, to transgenic plants (or parts or propagules of plants)

CC containing such constructs. RPP5 imparts resistance to the disease

CC caused by the leaf mould fungal pathogen Cladosporium fulvum

CC C.fulvum contains avirulence (Avr) genes that confer recognition by

CC plants containing Cf genes, leading to the activation of host

CC defence mechanisms to attack the disease.

CC N.B. The amino acid sequence given here and that given as SEQ ID 10 in

CC the specification are different, see features table and T06308.

SQ Sequence 632 AA;

Query Match 94.3%; Score 50; DB 16; Length 632;

Best Local Similarity 83.3%; Pred. No. 2.04e+02;

Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 139 kqrwvq 144

QY 1 KQKVVQ 6

RESULT 24

ID W03659 standard; protein; 1269 AA.

AC W03659;

DE 19-FEB-1997 (first entry)

DE RPP5 downy mildew resistance protein.

KM Arabidopsis; RPP5; disease-resistance; downy mildew;

KM Peronospora parasitica; leucine-rich repeat; transgenic plant;

KM crop improvement.

OS Arabidopsis Landsberg erecta.

FT Key

FT Location/Qualifiers

FT peptide 104..109

FT /note= "Peptide W03660 (claim 22) used to construct

FT primer T37477 (claim 23)"

FT 437..441

FT /note= "Peptide W06331 (claim 22), used to construct

FT primer T37478 (claim 23)"

PN W09631608-A1.

PD 10-OCT-1996.

PF 09-APR-1996; G00849.

PR 07-APR-1995; GB-007232.

PA (INNE-) INNES CENT INNOVATIONS LTD JOHN.
PI Coleman M, Daniels MJ, Jones JDG, Parker J, Szabo V;
DR WPI: 96-465029/46.
DR N-PSDB: T37476.
PT Isolated Arabidopsis pathogen resistance gene RPP5 - for prodn. of
PT transgenic plants esp. resistant to downy mildew fungus
PS Claim 1, Fig 2, 59pp, English.
CC This sequence represents an Arabidopsis RPP5 protein, which
CC confers disease-resistance against the downy mildew fungus
CC (Peronospora parasitica). The sequence includes leucine-rich
CC Repeat regions, characteristic of many pathogen-resistance genes.
CC The sequence shows strong homology to pathogen-resistance proteins
CC N (from tobacco, conferring rust resistance) and L6
CC (from flax, conferring rust resistance), including regions involved
CC in nucleotide binding (Kinase-1a (P-loop), Kinase-2 and Kinase-3a
CC domains). Primers T37477-78, corresponding to a conserved region
CC between peptides W03660-61, may be used to identify other resistance
CC genes in plants. The RPP5 gene may be expressed in a transgenic
CC plant to confer disease-resistance.
SQ Sequence 1269 AA;

Query Match 94.3%; Score 50; DB 20; Length 1269;
Best Local Similarity 83.3%; Pred. No. 2,04e+02;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 139 kgrwvq 144
1:||||
QY 1 KOKWVQ 6

RESULT 25
ID W2675 standard; Protein: 71 AA.
AC W2675;
DE Drol3+ chemokine beta10 or monocyte chemotactic protein 4 variant.
KW Human; chemokine beta10; CK beta10; treatment; antagonist;
KW solid tumour; infection; autoimmune disease; asthma; antibody;
KW fibrotic disease; psoriasis; neurodegenerative disease;
KW wound healing; haematopoiesis regulation; gene therapy;
KW chromosome identification; monocyte chemotactic protein 4;
KW leukaemia; MCP-4; Drol3+ variant.
OS Homo sapiens.
PN MO9731098-A1.
PD 28-AUG-1997.
PR 23-FEB-1996; U02598.
PR 23-FEB-1996; WO-U02598.
PA (HUMA-) HUMAN GENOME SCI INC.
PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
PI Parmelee D, White J;
DR WPI: 97-435153/40.
PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
PT protein 4 - useful to treat tumours, autoimmune disease, infection,
PT asthma and fibrosis.
PS Example 11, Fig 5; 83pp; English.
CC The present sequence is human chemokine beta10 (CK beta10) or
CC monocyte chemotactic protein 4 (MCP-4) Drol3+ variant, which can
CC be used to treat patients deficient in CK beta10, while a CK beta10
CC antagonist can be used to reduce excessive levels of CK beta10. CK
CC beta10 can be used to treat leukaemia, solid tumours, chronic or
CC opportunistic infections, autoimmune diseases, asthma, fibrotic
CC diseases, psoriasis and neurodegenerative diseases. It also
CC promotes wound healing, regulates haematopoiesis and generates
CC antibodies. Labelled CK beta10 can be used to identify its cognate
CC receptor, while cells expressing the receptor can be used to screen
CC compounds for (ant)agonist activity. The antagonist can be used to
CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
CC infectious diseases, allergies, prostaglandin dependent fever and
CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
CC syndrome, lung inflammation and atherosclerosis. CK beta10 cDNA can
CC be used to isolate genes encoding similar peptides, in gene therapy
CC and for chromosome identification.
SQ Sequence 71 AA;

Query Match 92.5%; Score 49; DB 27; Length 71;
Best Local Similarity 83.3%; Pred. No. 2,47e+02;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 51 kekvwq 56
1:||||
QY 1 KOKWVQ 6

RESULT 26
ID W2673 standard; Protein: 75 AA.
AC W2673;
DE Bac 2 chemokine beta10 or monocyte chemotactic protein 4 variant.
KW Human; chemokine beta10; CK beta10; treatment; antagonist;
KW solid tumour; infection; autoimmune disease; asthma; antibody;
KW fibrotic disease; psoriasis; neurodegenerative disease;
KW wound healing; haematopoiesis regulation; gene therapy;
KW chromosome identification; monocyte chemotactic protein 4;
KW leukaemia; MCP-4; Bac 3 variant.
OS Homo sapiens.
PN MO9731098-A1.
PD 28-AUG-1997.
PR 23-FEB-1996; U02598.
PR 23-FEB-1996; WO-U02598.
PA (HUMA-) HUMAN GENOME SCI INC.
PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
PI Parmelee D, White J;
DR WPI: 97-435153/40.
PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
PT protein 4 - useful to treat tumours, autoimmune disease, infection,
PT asthma and fibrosis.
PS Example 11, Fig 5; 83pp; English.
CC The present sequence is human chemokine beta10 (CK beta10) or
CC monocyte chemotactic protein 4 (MCP-4) Bac 3 variant, which can be
CC used to treat patients deficient in CK beta10, while a CK beta10
CC antagonist can be used to reduce excessive levels of CK beta10. CK
CC beta10 can be used to treat leukaemia, solid tumours, chronic or
CC opportunistic infections, autoimmune diseases, asthma, fibrotic
CC diseases, psoriasis and neurodegenerative diseases. It also
CC promotes wound healing, regulates haematopoiesis and generates
CC antibodies. Labelled CK beta10 can be used to identify its cognate
CC receptor, while cells expressing the receptor can be used to screen
CC compounds for (ant)agonist activity. The antagonist can be used to
CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
CC infectious diseases, allergies, prostaglandin dependent fever and
CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
CC syndrome, lung inflammation and atherosclerosis. CK beta10 cDNA can
CC be used to isolate genes encoding similar peptides, in gene therapy
CC and for chromosome identification.
SQ Sequence 75 AA;

Query Match 92.5%; Score 49; DB 27; Length 75;
Best Local Similarity 83.3%; Pred. No. 2,47e+02;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 55 kekvwq 60
1:||||
QY 1 KOKWVQ 6

RESULT 27
ID W2672 standard; Protein: 77 AA.
AC W2672;
DE 19-MAR-1998 (first entry)
DE Bac 2 chemokine beta10 or monocyte chemotactic protein 4 variant.
KW Human; chemokine beta10; CK beta10; treatment; antagonist;
KW solid tumour; infection; autoimmune disease; asthma; antibody;
KW fibrotic disease; psoriasis; neurodegenerative disease;
KW wound healing; haematopoiesis regulation; gene therapy;
KW chromosome identification; monocyte chemotactic protein 4;
KW leukaemia; MCP-4; Bac 2 variant.
OS Homo sapiens.

PN W09731098-A1.
 PD 28-AUG-1997.
 PR 23-FEB-1996; U02598.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
 PI Parmelee D, White J;
 PI WPI: 97-435153/40.
 PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 PT protein 4 - useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis
 PS Example 11; Fig 5; 83pp; English.
 CC The present sequence is human chemokine beta10 (CK beta10) or
 CC monocyte chemotactic protein 4 (MCP-4) Bac 2 variant, which can be
 CC used to treat patients deficient in CK beta10, while a CK beta10
 CC antagonist can be used to reduce excessive levels of CK beta10. CK
 CC beta10 can be used to treat leukaemia, solid tumours, chronic or
 CC opportunistic infections, autoimmune diseases, asthma, fibrotic
 CC diseases, psoriasis and neurodegenerative diseases. It also
 CC promotes wound healing, regulates haematopoiesis and generates
 CC antibodies. Labelled CK beta10 can be used to identify its cognate
 CC receptor, while cells expressing the receptor can be used to screen
 CC compounds for (ant)agonist activity. The antagonist can be used to
 CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
 CC infectious diseases, allergies, prostaglandin dependent fever and
 CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
 CC syndrome, lung inflammation and atherosclerosis. CK beta10 cDNA can
 CC be used to isolate genes encoding similar peptides, in gene therapy
 CC and for chromosome identification.
 SQ Sequence 77 AA;

Query Match 92.5%; Score 49; DB 27; Length 77;
 Best Local Similarity 83.3%; Pred. No. 2.47e+02;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 57 kekwyg 62
 1:||||
 QY 1 KOKWVO 6

RESULT 28
 ID W22674 standard; Protein: 79 AA.
 AC W22674;
 DT 19-MAR-1998 (first entry)
 DE Droll1/2 chemokine beta10 or monocyte chemotactic protein 4 variant.
 KW Human; chemokine beta10; CK beta10; treatment; antagonist;
 KW solid tumour; infection; autoimmune disease; asthma; antibody;
 KW fibrotic disease; psoriasis; neurodegenerative disease;
 KW wound healing; haematopoiesis regulation; gene therapy;
 KW chromosome identification; monocyte chemotactic protein 4;
 KW leukaemia; MCP-4; Droll1/2 variant.
 OS Homo sapiens.
 PN W09731098-A1.
 PD 28-AUG-1997.
 PR 23-FEB-1996; U02598.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
 PI Parmelee D, White J;
 PI WPI: 97-435153/40.
 PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 PT protein 4 - useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis
 PS Example 11; Fig 5; 83pp; English.
 CC The present sequence is human chemokine beta10 (CK beta10) or
 CC monocyte chemotactic protein 4 (MCP-4) Droll1/2 variant, which can
 CC be used to treat patients deficient in CK beta10, while a CK beta10
 CC antagonist can be used to reduce excessive levels of CK beta10. CK
 CC beta10 can be used to treat leukaemia, solid tumours, chronic or
 CC opportunistic infections, autoimmune diseases, asthma, fibrotic
 CC diseases, psoriasis and neurodegenerative diseases. It also
 CC promotes wound healing, regulates haematopoiesis and generates
 CC antibodies. Labelled CK beta10 can be used to identify its cognate

CC receptor, while cells expressing the receptor can be used to screen
 CC compounds for (ant)agonist activity. The antagonist can be used to
 CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
 CC infectious diseases, allergies, prostaglandin dependent fever and
 CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
 CC syndrome, lung inflammation and atherosclerosis. CK beta10 cDNA can
 CC be used to isolate genes encoding similar peptides, in gene therapy
 CC and for chromosome identification.
 SQ Sequence 79 AA;

Query Match 92.5%; Score 49; DB 27; Length 79;
 Best Local Similarity 83.3%; Pred. No. 2.47e+02;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 59 kekwyg 64
 1:||||
 QY 1 KOKWVO 6

RESULT 29
 ID W22671 standard; Protein: 82 AA.
 AC W22671;
 DT 19-MAR-1998 (first entry)
 DE Bac 1 chemokine beta10 or monocyte chemotactic protein 4 variant.
 KW Human; chemokine beta10; CK beta10; treatment; antagonist;
 KW solid tumour; infection; autoimmune disease; asthma; antibody;
 KW fibrotic disease; psoriasis; neurodegenerative disease;
 KW wound healing; haematopoiesis regulation; gene therapy;
 KW chromosome identification; monocyte chemotactic protein 4;
 KW leukaemia; MCP-4; Bac 1 variant.
 OS Homo sapiens.
 PN W09731098-A1.
 PD 28-AUG-1997.
 PR 23-FEB-1996; U02598.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
 PI Parmelee D, White J;
 PI WPI: 97-435153/40.
 PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 PT protein 4 - useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis
 PS Example 11; Fig 5; 83pp; English.
 CC The present sequence is human chemokine beta10 (CK beta10) or
 CC monocyte chemotactic protein 4 (MCP-4) Bac 1 variant, which can be
 CC used to treat patients deficient in CK beta10, while a CK beta10
 CC antagonist can be used to reduce excessive levels of CK beta10. CK
 CC beta10 can be used to treat leukaemia, solid tumours, chronic or
 CC opportunistic infections, autoimmune diseases, asthma, fibrotic
 CC diseases, psoriasis and neurodegenerative diseases. It also
 CC promotes wound healing, regulates haematopoiesis and generates
 CC antibodies. Labelled CK beta10 can be used to identify its cognate
 CC receptor, while cells expressing the receptor can be used to screen
 CC compounds for (ant)agonist activity. The antagonist can be used to
 CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
 CC infectious diseases, allergies, prostaglandin dependent fever and
 CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
 CC syndrome, lung inflammation and atherosclerosis. CK beta10 cDNA can
 CC be used to isolate genes encoding similar peptides, in gene therapy
 CC and for chromosome identification.
 SQ Sequence 82 AA;

Query Match 92.5%; Score 49; DB 27; Length 82;
 Best Local Similarity 83.3%; Pred. No. 2.47e+02;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 62 kekwyg 67
 1:||||
 QY 1 KOKWVO 6

RESULT 30
 ID W17665 standard; peptide: 82 AA.

AC W17665;
DE 16-DEC-1997 (first entry)
KW Stem cell mobilising chemokine CXbeta-10.
KW Haematopoietic cell; parasitic infection; colony stimulating factor;
KW haematoregulator; immune response; bacterial infection; transplant;
KW wound healing; bone marrow; immunosuppression; regeneration;
KW neoplastic disease; viral disease; gene therapy; cytotoxic drug.
OS Synthetic.
PN W09715594-A1.
PD 01-MAY-1997.
PF 23-OCT-1996; 016959.
PR 24-OCT-1995; US-006051.
PA (SMIR) SMITHKLINE BEECHAM CORP.
PI Kreider BL, Li H, Pelus L, White JR;
DR WPI; 97-256956/23.
PT Ten new chemokine(s) able to mobilise stem cells - used where
PT increased levels of haematopoietic cells are required, e.g. to
PT increase resistance to infection
PS Claim 7; Page 11-12; 24pp; English.
CC The present sequence represents a chemokine, CXbeta-10, which is capable
CC of mobilising stem cells. The chemokine can be used therapeutically to
CC improve stem cell mobilisation, optionally together with a colony
CC stimulating factor or other haematoregulatory agent. It can be used
CC wherever an increased level of haematopoietic cells is needed, e.g. to
CC increase the immune response to chronic infection (particularly
CC bacterial or parasitic), to promote wound healing, in (transplant)
CC patients with reduced bone marrow function as a result of
CC immunosuppressive treatment or disease, and to provide more rapid
CC regeneration of bone marrow after treatment for neoplastic or viral
CC diseases. The induced stem cells may be harvested for subsequent return
CC to the patient, optionally after they have been genetically manipulated
CC to deliver a selected gene product (gene therapy). The cells may be
CC co-administered with a cytotoxic drug.
SQ Sequence 82 AA;

Query Match 92.5%; Score 49; DB 24; Length 82;
Best Local Similarity 83.3%; Pred. No. 2,47e+02;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

DB 62 kekvwg 67
1:||||
QY 1 KOKWVQ 6

Search completed: Thu Apr 1 07:33:30 1999
Job time : 19 secs.

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MARCH 1999

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MPearch_pp protein - protein database search, using Smith-Waterman algorithm
Run on: Thu Apr 1 07:32:23 1999; MasPar time 3.10 Seconds
Tabular output not generated.

Title: >US-08-927-939-9
Description: (1-6) from US08927939.dep
Perfect Score: 53
Sequence: 1 KOKWVQ 6

Scoring table: PAM 150
Gap 15

Searched: 116738 segs, 37463448 residues

Post-processing: Minimum Match 0%
Listing first 100 summaries

Database: p1r58
1:p1r1 2:p1r2 3:p1r3 4:p1r4

Statistics: Mean 21.949; Variance 39.337; scale 0.558

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description	Pred. No.
1	53	100.0	99	2	JC2136	monocyte chemottract 1.25e+01
2	53	100.0	99	2	A60299	monocyte chemottract 1.25e+01
3	53	100.0	99	2	JC2336	monocyte chemottract 1.25e+01
4	53	100.0	99	2	A39296	monocyte chemottract 1.25e+01
5	53	100.0	125	2	I46857	monocyte chemottract 1.25e+01
6	50	94.3	192	2	E71437	probable resistance g 3.58e+01
7	49	92.5	95	2	JN0841	interleukin-8 - dog 5.05e+01
8	49	92.5	101	2	I46871	interleukin-8 - rabbi 5.05e+01
9	49	92.5	101	2	I46997	interleukin-8 - sheep 5.05e+01
10	49	92.5	101	2	S42496	interleukin 8 - sheep 5.05e+01
11	49	92.5	103	2	A53096	interleukin-8 precurs 5.05e+01
12	49	92.5	103	2	A44253	alveolar macrophage c 5.05e+01
13	49	92.5	324	2	S43424	zipper containing pro 9.89e+01
14	47	88.7	145	2	S76877	hypothetical protein 9.89e+01
15	47	88.7	579	2	A56740	sperm-egg recognition 9.89e+01
16	47	88.7	651	2	S73558	phosphate transport s 9.89e+01
17	46	86.8	96	2	JC2478	ectatin - rat 1.38e+02
18	46	86.8	96	2	I48099	ectatin precursor - g 1.38e+02
19	46	86.8	99	2	JC2417	ectatin precursor - g 1.38e+02
20	46	86.8	101	2	I48148	Neutrophil attractant 1.38e+02
21	46	86.8	109	2	A54678	monocyte chemottract 1.38e+02
22	46	86.8	120	2	I48147	monocyte chemottract 1.38e+02
23	46	86.8	187	2	C71317	hypothetical protein 1.38e+02

24	86.8	289	2	D70452	leucyl-RNA synthetas 1.38e+02
25	86.8	334	2	G71228	hypothetical protein 1.38e+02
26	86.8	460	2	E64019	hypothetical protein 1.38e+02
27	84.9	141	2	E64368	hypothetical protein 1.90e+02
28	84.9	178	2	F69804	hypothetical protein 1.90e+02
29	84.9	1038	2	A71437	probable resistance g 1.90e+02
30	83.0	128	2	S19497	hypothetical protein 2.62e+02
31	83.0	251	2	S20455	pqq protein - Klebsi 2.62e+02
32	83.0	306	2	A48118	major epidermal calci 2.62e+02
33	83.0	333	2	G71442	hypothetical protein 2.62e+02
34	83.0	419	2	S71343	calreticulin precursor 2.62e+02
35	83.0	500	2	S59795	hypothetical protein 2.62e+02
36	83.0	521	2	S76556	hypothetical protein 2.62e+02
37	83.0	591	2	A45135	proliferin - human 2.62e+02
38	83.0	2248	2	A35938	proliferin - human 2.62e+02
39	81.1	97	2	JC4912	ectatin - human 3.59e+02
40	81.1	99	2	A37034	interleukin-8 precurs 3.59e+02
41	81.1	122	2	A23521	serum amyloid A3 prec 3.59e+02
42	81.1	183	2	F69995	ABC transporter (perm 3.59e+02
43	81.1	246	2	S01789	pyruvate formate-lyas 3.59e+02
44	81.1	317	2	G70356	thymidylate synthase 3.59e+02
45	81.1	359	2	I56077	MHC class I antigen - 3.59e+02
46	81.1	389	2	E71113	probable nonspecific 3.59e+02
47	81.1	475	2	I48PT4	helicase (RC 3.6.1.-) 3.59e+02
48	81.1	477	2	F71436	hypothetical protein 3.59e+02
49	81.1	489	2	B42815	DNA primase Sog210 - 3.59e+02
50	81.1	633	2	S48956	hypothetical protein 3.59e+02
51	81.1	766	2	G71437	probable resistance g 3.59e+02
52	81.1	1256	2	C71436	probable resistance g 3.59e+02
53	81.1	1422	2	B71437	probable resistance g 3.59e+02
54	81.1	1587	2	S68420	citron - mouse 3.59e+02
55	81.1	1705	2	F71414	hypothetical protein 3.59e+02
56	81.1	1781	2	A34374	DNA-directed RNA poly 3.59e+02
57	81.1	2467	2	D71437	probable resistance g 3.59e+02
58	81.1	4085	2	S28600	hypothetical protein 3.59e+02
59	79.2	61	2	A33833	GTP-binding protein a 4.90e+02
60	79.2	92	2	I52322	macrophage inflammato 4.90e+02
61	79.2	97	2	A48093	monocytic cytokine FI 4.90e+02
62	79.2	119	2	D64002	hypothetical protein 4.90e+02
63	79.2	191	2	A36382	GTP-binding protein G 4.90e+02
64	79.2	191	2	A39265	GTP-binding protein G 4.90e+02
65	79.2	191	2	A39265	GTP-binding protein G 4.90e+02
66	79.2	264	2	S67861	GumL protein - Xantho 4.90e+02
67	79.2	265	2	S32652	transcription factor 4.90e+02
68	79.2	338	2	A70127	phosphate ABC transpo 4.90e+02
69	79.2	335	2	JH0813	GTP-binding regulator 4.90e+02
70	79.2	346	2	E64002	hypothetical protein 4.90e+02
71	79.2	359	2	G70445	N-acetylmutamoyl-L-al 4.90e+02
72	79.2	376	2	S27015	GTP-binding regulator 4.90e+02
73	79.2	377	2	RGKSA1	GTP-binding regulator 4.90e+02
74	79.2	379	2	A42964	guanine nucleotide-bi 4.90e+02
75	79.2	379	2	RGXLA	GTP-binding regulator 4.90e+02
76	79.2	380	2	RGXLA	GTP-binding regulator 4.90e+02
77	79.2	382	2	RGFAS	GTP-binding regulator 4.90e+02
78	79.2	383	2	S32457	gamma-butyrobetaine h 4.90e+02
79	79.2	385	2	RGFAL	GTP-binding regulator 4.90e+02
80	79.2	394	2	S33458	GTP-binding regulator 4.90e+02
81	79.2	394	2	RGRTA2	GTP-binding regulator 4.90e+02
82	79.2	394	2	RGRTA2	GTP-binding regulator 4.90e+02
83	79.2	394	2	RGRTA2	GTP-binding regulator 4.90e+02
84	79.2	394	2	RGRTA2	GTP-binding regulator 4.90e+02
85	79.2	396	2	A71206	hypothetical protein 4.90e+02
86	79.2	397	2	RGPSA2	GTP-binding regulator 4.90e+02
87	79.2	419	2	S34421	GTP-binding regulator 4.90e+02
88	79.2	503	2	YFVAC	phenylalanine--tRNA 1 4.90e+02
89	79.2	510	2	A29368	prostaglandin omega-h 4.90e+02
90	79.2	519	2	I53015	fatty acid omega-hydr 4.90e+02
91	79.2	519	2	JX0331	laurate omega-hydroxy 4.90e+02
92	79.2	591	2	I65981	fatty acid omega-hydr 4.90e+02
93	79.2	722	2	C71411	hypothetical protein 4.90e+02
94	79.2	801	2	D70309	ribonucleoside-diphos 4.90e+02
95	79.2	809	2	A55547	quinate-shikimate deh 4.90e+02
96	79.2	846	2	S52418	GTP-binding regulator 4.90e+02

97 42 79.2 959 1 P2XR13 outer capsid protein 4.90e+02
 98 42 79.2 1022 1 I33643 RTX-toxin I - Actinob 4.90e+02
 99 42 79.2 1053 2 D71466 probable ribonucleos 4.90e+02
 100 42 79.2 1858 1 A44214 genome polypeptide 1 4.90e+02

ALIGNMENTS

RESULT 1
 ENTRY JC2136 #type complete
 TITLE monocytic chemottractant protein-1 precursor - pig
 ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
 DATE 30-Sep-1993 #sequence_revision 20-Aug-1994 #text_change 08-Sep-1997
 ACCESSIONS JC2136; S57498
 REFERENCE JC2136
 #authors Hosang, K.; Knoke, I.; Klaudiny, J.; Wempe, F.; Wuttke, W.; Schell, K.H.
 #journal Blochem. Biophys. Res. Commun. (1994) 199:962-968
 #title Porcine luteal cells express monocytic chemottractant protein-1 (MCP-1): Analysis by polymerase chain reaction and cDNA cloning.
 #accession JC2136
 #molecule_type mRNA
 #residues 1-99 ##label HOS
 REFERENCE S57497
 #authors Zach, O.
 #submission submitted to the EMBL Data Library, July 1994
 #accession S57498
 #status preliminary
 #molecule_type mRNA
 #residues 1-99 ##label ZAC
 #cross-references EMBL:X79416; NID:g872312; PID:g872313
 CLASSIFICATION #superfamily macrophage inflammatory protein
 KEYWORDS glycoprotein
 FEATURE 1-23
 24-99
 94
 SUMMARY #length 99 #molecular-weight 10976 #checksum 9768
 Query Match 100.0%; Score 53; DB 2; Length 99;
 Best Local Similarity 100.0%; Pred. No. 1.25e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 79 KOKWVO 84
 1 KOKWVO 6

RESULT 2
 ENTRY A60299 #type complete
 TITLE monocytic chemottractant protein 1 precursor - human
 ALTERNATE_NAMES GDCF-1; glioma-derived monocytic chemotactic factor 1; MCAR; MCP-1; monocytic chemotactic factor 1; monocytic secretory protein; tumor-derived chemotactic factor
 CONTAINS glioma-derived chemotactic factor 2 (GDCF-2)
 ORGANISM #formal_name Homo sapiens #common_name man
 DATE 20-Feb-1993 #sequence_revision 20-Feb-1993 #text_change 20-Mar-1998
 ACCESSIONS A35474; A33476; S03339; I51841; A60299; A32300; A32396;
 A35474
 REFERENCE A35474
 #authors Shyy, Y.J.; Li, Y.S.; Kojatukudy, P.E.
 #journal Biochem. Biophys. Res. Commun. (1990) 169:346-351
 #title Structure of human monocytic chemotactic protein gene and its regulation by TPA.
 #cross-references MUID:90290466
 #accession A35474
 #molecule_type DNA
 #residues 1-99 ##label SHY

##cross-references GB:M37719; NID:g187447; PID:g487124
 REFERENCE A33476
 #authors Rollins, B.J.; Stier, P.; Ernst, T.; Wong, G.G.
 #journal Mol. Cell. Biol. (1989) 9:4687-4695
 #title The human homolog of the JE gene encodes a monocytic secretory protein.
 #cross-references MUID:90097880
 #accession A33476
 #molecule_type mRNA
 #residues 1-99 ##label ROL
 #cross-references GB:M30816; GB:M31625; GB:M31626; NID:g188701; PID:g386961

REFERENCE S03339
 #authors Yoshimura, T.; Yuhki, N.; Moore, S.K.; Appella, E.; Lerman, M.I.; Leonard, E.J.
 #journal FEBS Lett. (1989) 244:487-493
 #title Human monocytic chemottractant protein-1 (MCP-1). Full-length cDNA cloning, expression in mitogen-stimulated blood mononuclear leukocytes, and sequence similarity to mouse competence gene JE.
 #cross-references MUID:89153605
 #accession S03339
 #status not compared with conceptual translation
 #molecule_type mRNA
 #residues 1-99 ##label YOS
 #cross-references GB:X14768; NID:g34513; PID:g34514
 #experimental_source glioma cell line U-105MG

REFERENCE I51841
 #authors Yoshimura, T.; Leonard, E.J.
 #journal Adv. Exp. Med. Biol. (1991) 305:47-56
 #title Human monocytic chemottractant protein-1 (MCP-1).
 #cross-references MUID:92095166
 #accession I51841
 #status preliminary; translated from GB/EMBL/DBJ
 #molecule_type mRNA
 #residues 1-99 ##label YO2
 #cross-references GB:S71513; NID:g240867; PID:g240868

REFERENCE A60299
 #authors Bottazzi, B.; Colotta, F.; Sica, A.; Nobili, N.; Mantovani, A.
 #journal Int. J. Cancer (1990) 45:795-797
 #title A chemottractant expressed in human sarcoma cells (tumor-derived chemotactic factor, TDCF) is identical to monocytic chemottractant protein-1/monocytic chemotactic and activating factor (MCP-1/MCAR).
 #accession A60299
 #status not compared with conceptual translation
 #molecule_type mRNA
 #residues 1-99 ##label BOR

REFERENCE A32300
 #authors Furutani, Y.; Nomura, H.; Notake, M.; Oyama, Y.; Fukui, T.; Yamada, M.; Larsen, C.G.; Oppenheim, J.J.; Matsushima, K.
 #journal Biochem. Biophys. Res. Commun. (1989) 159:249-255
 #title Cloning and sequencing of the cDNA for human monocytic chemotactic and activating factor (MCAR).
 #accession A32300
 #status not compared with conceptual translation
 #molecule_type mRNA
 #residues 1-99 ##label FUR

REFERENCE A32396
 #cross-references GB:M24545; NID:187434; PID:g307163
 #authors Robinson, E.A.; Yoshimura, T.; Leonard, E.J.; Tanaka, S.; Griffin, P.R.; Shabanowitz, J.; Hunt, D.F.; Appella, E.
 #journal Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1850-1854
 #title Complete amino acid sequence of a human monocytic chemottractant, a putative mediator of cellular immune reactions.
 #cross-references MUID:89184525
 #accession A32396
 #molecule_type protein
 #residues 1-99 ##label ROB

REFERENCE A34561
 #cross-references MUID:90290466
 #accession A34561
 #molecule_type DNA
 #residues 1-99 ##label SHY

```
#authors      Decock, B.; Conings, R.; Lenaerts, J.P.; Billiau, A.; Van
#journal      Biochem. Biophys. Res. Commun. (1990) 167:904-909
#title        Identification of the monocyte chemotactic protein from human
              osteosarcoma cells and monocytes: detection of a novel
              N-terminally processed form.
#cross-references MUID:90211336
#accession    A34561
#molecule_type protein
#residues     29-33,'XX',36-52;82-92 ##label DEC
REFERENCE     157488
#authors      Li, Y.S.; Shyy, Y.J.; Wright, J.G.; Valente, A.J.; Cornhill,
              J.F.; Kolattukudy, P.E.
#journal      Mol. Cell. Biochem. (1993) 126:61-68
#title        The expression of monocyte chemotactic protein (MCP-1) in
              human vascular endothelium in vitro and in vivo.
#cross-references MUID:94150478
#accession    I57488
#status       translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues     1-99 ##label LIT
#cross-references GB:569738; NID:9545464; PID:9545465
REFERENCE     JC1096
#authors      Ye, O.N.; Su, G.F.; Yuan, Y.; Huang, C.F.;
              Chinese J. Microbiol. Immunol. (1994) 14:29-32
#journal      The PCR, cloning and sequencing of human monocyte
#title        chemottractant protein-1 (MCP-1) gene.
#accession    JC1096
#molecule_type mRNA
#residues     24-28,'O',30-99 ##label YEO
GENETICS
#gene         GDB:SCYA2
#cross-references GDB:125279; OMIM:158105
#map_position 17q11.2-17q12
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS       cytokine; glycoprotein; inflammation; pyroglutamic acid
FEATURE        1-23
24-99          #domain signal sequence #status predicted #label SIG\
               #product monocyte chemottractant protein 1 #status
               experimental #label MAT\
29-99          #product monocyte chemottractant protein 1, short form
               #status experimental #label MAT\
24            #modified site pyrrolidone carboxylic acid (Gln) (in
37             mature form) #status experimental\
               #binding_site carbohydrate (Asn) (covalent) #status
               predicted
SUMMARY        #length 99 #molecular-weight 11025 #checksum 7984
Query Match    100.0%; Score 53; DB 2; Length 99;
Best Local Similarity 100.0%; Pred. No. 1.25e+01;
Matches        6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
DB            79 KOKWQ 84
              |||||
QY            1 KOKWQ 6

RESULT 3
ENTRY     JC2336      #type complete
TITLE     monocyte chemottractant protein-1 - bovine
ORGANISM  #formal_name Bos primigenius indicus #common_name zebu cattle
DATE      20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change
              03-May-1996
ACCESSIONS JC2336
REFERENCE   JC2336
#authors    Wempe, F.; Kuhlmann, J.K.; Scheit, K.H.
#journal    Biochem. Biophys. Res. Commun. (1994) 202:1272-1279
#title      Characterization of the bovine monocyte chemottractant
              protein-1 gene.
#accession  JC2336
#molecule_type protein
#residues   1-99 ##label WEM
GENETICS
```

```
#gene         MCP-1
#introns      26/1: 65/2
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY        #length 99 #molecular-weight 11114 #checksum 9401
Query Match    100.0%; Score 53; DB 2; Length 99;
Best Local Similarity 100.0%; Pred. No. 1.25e+01;
Matches        6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
DB            79 KOKWQ 84
              |||||
QY            1 KOKWQ 6

RESULT 4
ENTRY     A39296      #type complete
TITLE     monocyte chemottractant protein 1 precursor - bovine
ALTERNATE_NAMES monocyte chemotactic factor 1; seminal plasma protein p6
ORGANISM      #formal_name Bos primigenius taurus #common_name cattle
DATE          03-Aug-1992 #sequence_revision 03-Aug-1992 #text_change
              31-Oct-1997
ACCESSIONS    A39296
REFERENCE     A39296
#authors      Wempe, F.; Henschen, A.; Scheit, K.H.
#journal      DNA Cell Biol. (1991) 10:671-679
#title        Gene expression and cDNA cloning identified a major basic
              protein constituent of bovine seminal plasma as bovine
              monocyte-chemottractant protein-1 (MCP-1).
#cross-references MUID:92096117
#accession    A39296
#molecule_type mRNA
#residues     1-99 ##label WEM
#cross-references GB:M84602; GB:M85264; NID:9163394; PID:9163395
#accession    B39296
#molecule_type protein
#residues     50-68,'X',70-74,'X',76 ##label WZ2
#experimental_source seminal vesicle
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS       glycoprotein
FEATURE        1-23
24-99          #domain signal sequence #status predicted #label SIG\
               #product monocyte chemottractant protein 1 #status
               predicted #label MAT\
94            #binding_site carbohydrate (Asn) (covalent) #status
               predicted
SUMMARY        #length 99 #molecular-weight 11114 #checksum 9401
Query Match    100.0%; Score 53; DB 2; Length 99;
Best Local Similarity 100.0%; Pred. No. 1.25e+01;
Matches        6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
DB            79 KOKWQ 84
              |||||
QY            1 KOKWQ 6

RESULT 5
ENTRY     I46857      #type complete
TITLE     monocyte chemottractant protein-1 - rabbit
ORGANISM      #formal_name Oryctolagus cuniculus #common_name domestic
              rabbit
DATE          14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change
              09-May-1997
ACCESSIONS    I46857
REFERENCE     I46857
#authors      Yoshimura, T.; Yuhki, N.
#journal      J. Immunol. (1991) 146:3483-3488
#title        Neutrophil attractant/activation protein-1 and monocyte
              chemottractant protein-1 in rabbit: cDNA cloning and their
              expression in spleen cells.
#cross-references MUID:91225489
#accession    I46857
#status       preliminary; translated from GB/EMBL/DBJ
```

```
##molecule_type mRNA
##residues 1-125 ##label YOS
##cross-references GB:M57440; NID:q165469; PID:q165470
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 125 #molecular-weight 13776 #checksum 4498

Query Match 100.0%; Score 53; DB 2; Length 125;
Best Local Similarity 100.0%; Pred. No. 1.25e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 79 KOKWVQ 84
|:|:|:|
OY 1 KOKWVQ 6

RESULT 6
ENTRY E71437 #type complete
TITLE Probable resistance gene - Arabidopsis thaliana
ORGANISM #formal_name Arabidopsis thaliana
VARIETY Columbia
DATE 03-Aug-1998 #sequence_revision 03-Aug-1998 #text_change
03-Aug-1998

ACCESSIONS E71437
REFERENCE A71400
AUTHORS Bevan, M.; Bancroft, I.; Bent, E.; Loyer, K.; Goodman, H.;
Stiekema, W.; Drost, L.; Ridley, P.; Hudson, S.A.; Patel,
K.; Murphy, G.; Piffanelli, P.; Wedler, H.; Wedler, E.;
Wambutt, R.; Weitzenegger, T.; Pohl, T.M.; Terryn, N.;
Gielen, J.; Villarroel, R.; De Clerck, R.; Van Montagu, M.;
Lecharny, A.; Auborg, S.; Gy, I.; Kreis, M.; Lao, N.;
Kavanagh, T.; Hempel, S.; Kotter, P.; Ertter, K.D.; Rieger,
M.; Schaefer, M.; Funk, B.; Mueller-Auer, S.; Silvey, M.;
James, R.; Montfort, A.; Pons, A.; Pulgomenech, P.; Douka,
A.; Vouklatou, E.; Milioni, D.; Hatzopoulos, P.;
Pitaravdi, E.; Obermayer, B.; Hilbert, H.; Duesterhoft, A.;
Moore, T.; Jones, J.D.G.; Eneva, T.; Palme, K.; Benes, V.;
Reichman, S.; Ansoorge, W.; Cooke, R.; Berger, C.; Delseny,
M.; Voet, M.; Volckaert, G.; Mewes, H.W.; Klosterman, S.;
Schueller, C.; Chalkatzis, N.
#journal Nature (1998) 391:485-488
#title Analysis of 1.9 Mb of contiguous sequence from chromosome 4
of Arabidopsis thaliana.
#cross-references MUID:98121113
#accession E71437
#status preliminary; nucleic acid sequence not shown;
translation not shown
#molecule_type DNA
#residues 1-192 ##label BEV
##cross-references GB:297342; NID:q2245031; PID:e327026; PID:q2245051
GENETICS
SUMMARY #map_position 4COP9-4G3845
#length 192 #molecular-weight 21535 #checksum 5065

Query Match 94.3%; Score 50; DB 2; Length 192;
Best Local Similarity 83.3%; Pred. No. 3.58e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 139 KOKWVQ 144
|:|:|:|
OY 1 KOKWVQ 6

RESULT 7
ENTRY JN0841 #type complete
TITLE Interleukin-8 - dog
ORGANISM #formal_name Canis lupus familiaris #common_name dog
DATE 19-May-1994 #sequence_revision 19-May-1994 #text_change
12-Apr-1995

ACCESSIONS JN0841
REFERENCE JN0841
AUTHORS Ishikawa, J.; Suzuki, S.; Hotta, K.; Hirota, Y.; Mizuno, S.;
Suzuki, K.
```

```
#journal Gene (1993) 131:305-306
#title Cloning of a canine gene homologous to the human
Interleukin-8-encoding gene.
#accession JN0841
#molecule_type DNA
#residues 1-95 ##label ISH
COMMENT This protein is a polymorphonuclear leukocytes chemotactic factor
and is involved in the host defense function.
GENETICS
#introns 22/1; 67/2
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 95 #molecular-weight 10611 #checksum 3157

Query Match 92.5%; Score 49; DB 2; Length 95;
Best Local Similarity 83.3%; Pred. No. 5.05e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 81 KKKWVQ 86
|:|:|:|
OY 1 KKKWVQ 6

RESULT 8
ENTRY I46871 #type complete
TITLE Interleukin-8 - rabbit
ALTERNATE_NAMES neutrophil attractant/activation protein-1
ORGANISM #formal_name Oryctolagus cuniculus #common_name domestic
rabbit
DATE 14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change
09-Aug-1997

ACCESSIONS I46871; S13052
REFERENCE I46857
AUTHORS Yoshimura, T.; Yuhki, N.
#journal J. Immunol. (1991) 146:3483-3488
#title Neutrophil attractant/activation protein-1 and monocyte
chemoattractant protein-1 in rabbit: cDNA cloning and their
expression in spleen cells.
#cross-references MUID:91225489
#accession I46871
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-101 ##label YOS
##cross-references GB:M57439; NID:q165552; PID:q165553
REFERENCE S13052
AUTHORS Beaudien, B.C.; Collins, P.D.; Jose, P.J.; Totty, N.F.;
Hsuan, J.; Waterfield, M.D.; Williams, T.J.
#journal Biochem. J. (1990) 271:797-801
#title A novel neutrophil chemoattractant generated during an
inflammatory reaction in the rabbit peritoneal cavity in
vivo. Purification, partial amino acid sequence and
structural relationship to Interleukin 8.
#cross-references MUID:91058518
#accession S13052
#molecule_type protein
#residues 23-33; 'X', 35; 'X', 37-46; 'X', 48-49; 'I', 51-53 ##label BRA
CYCLOKINE #superfamily beta-thromboglobulin
SUMMARY #length 101 #molecular-weight 11402 #checksum 1085

Query Match 92.5%; Score 49; DB 2; Length 101;
Best Local Similarity 83.3%; Pred. No. 5.05e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 81 KKKWVQ 86
|:|:|:|
OY 1 KKKWVQ 6

RESULT 9
ENTRY I46997 #type complete
TITLE Interleukin-8 - sheep
ORGANISM #formal_name Ovis sp. #common_name sheep
DATE 21-Feb-1997 #sequence_revision 21-Feb-1997 #text_change
```

09-May-1997
ACCESSIONS 146997
REFERENCE
#authors Seow, H.F.; Yoshimura, T.; Wood, P.R.; Colditz, I.G.
#journal Immunol. Cell Biol. (1994) 72:396-405
#title Cloning, sequencing, expression and inflammatory activity in skin of ovine interleukin-8.
#cross-references M0ID:95137691
#accession 146997
#status preliminary; translated from GB/EMBL/DBJ
#molecule-type mRNA
#residues 1-101 #label SEO
#cross-references GB:S74436; NID:g786590; PID:g786591
GENETICS
#gene oil-8
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 101 #molecular-weight 11292 #checksum 294
Query Match 92.5%; Score 49; DB 2; Length 101;
Best Local Similarity 83.3%; Pred. No. 5.05e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
Db 81 KKKWQ 86
1-11111
1 KKKWQ 6
RESULT 10
ENTRY S42496 #type complete
TITLE Interleukin 8 - sheep
ORGANISM #formal_name Ovis orientalis aries, Ovis ammon aries
#common_name domestic sheep
DATE 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 08-Sep-1997
ACCESSIONS S42496
REFERENCE S42496
#authors Legastelois, I.; Greenland, T.; Arnaud, P.; Morner, J.F.; Cordier, G.
#submission Submitted to the EMBL Data Library, March 1994
#description Nucleotide sequence of ovine interleukin 8 cDNA using polymerase chain reaction.
#accession S42496
#status preliminary
#molecule-type mRNA
#residues 1-101 #label LEG
#cross-references EMBL:X78306; NID:g463253; PID:g463254
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 101 #molecular-weight 11292 #checksum 294
Query Match 92.5%; Score 49; DB 2; Length 101;
Best Local Similarity 83.3%; Pred. No. 5.05e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
Db 81 KKKWQ 86
1-11111
1 KKKWQ 6
RESULT 11
ENTRY A53096 #type complete
TITLE Interleukin-8 precursor - pig
ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
DATE 02-Jun-1995 #sequence_revision 02-Jun-1995 #text_change 08-Sep-1997
ACCESSIONS A53096
REFERENCE A53096
#authors Lin, G.; Pearson, A.E.; Scamurra, R.W.; Zhou, Y.; Baarsch, M.J.; Weiss, D.J.; Murlaugh, M.P.
#journal J. Biol. Chem. (1994) 269:77-85
#title Regulation of interleukin-8 expression in porcine alveolar macrophages by bacterial lipopolysaccharide.
#accession A53096
#status preliminary

#molecule-type mRNA
#residues 1-103 #label LIN
#cross-references GB:M86923; NID:g164520; PID:g164521
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 103 #molecular-weight 11633 #checksum 8835
Query Match 92.5%; Score 49; DB 2; Length 103;
Best Local Similarity 83.3%; Pred. No. 5.05e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
Db 81 KKKWQ 86
1-11111
1 KKKWQ 6
RESULT 12
ENTRY A44253 #type complete
TITLE Alveolar macrophage chemotactic factor-I (AMCF-I)
ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
DATE 30-Apr-1993 #sequence_revision 18-Nov-1994 #text_change 23-Feb-1996
ACCESSIONS A44253
REFERENCE A44253
#authors Goodman, R.B.; Foster, D.C.; Mathewes, S.L.; Osborn, S.G.; Kulper, J.L.; Forstrom, J.W.; Martin, T.R.
#journal Biochemistry (1992) 31:10483-10490
#title Molecular cloning of porcine alveolar macrophage-derived neutrophil chemotactic factors I and II: identification of porcine IL-8 and another interleukin-alpha protein.
#cross-references M0ID:93041741
#accession A44253
#status preliminary
#molecule-type mRNA; protein
#residues 1-103 #label GOO
#experimental_source alveolar macrophage
#note Sequence extracted from NCBI backbone (NCBIN:117415, NCBIP:117416)
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 103 #molecular-weight 11677 #checksum 8904
Query Match 92.5%; Score 49; DB 2; Length 103;
Best Local Similarity 83.3%; Pred. No. 5.05e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
Db 81 KKKWQ 86
1-11111
1 KKKWQ 6
RESULT 13
ENTRY S43424 #type complete
TITLE zipper containing protein - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 07-Sep-1994 #sequence_revision 10-Nov-1995 #text_change 10-Sep-1997
ACCESSIONS S43424
REFERENCE S43424
#authors Dixon, B.; Sahely, B.; Liu, L.; Pothajdak, B.
#journal Biochim. Biophys. Acta (1993) 1216:321-324
#title Cloning a cDNA from human NK/T cells which codes for an unusual leucine zipper containing protein.
#accession S43424
#status preliminary
#molecule-type mRNA
#residues 1-324 #label DIX
#cross-references GB:L06633; NID:g431327; PID:g431328
#note The authors translated the codon AGA for residue 304 as Lys, GGT for residue 305 as Gln, and GGT for residue 306 as Leu
SUMMARY #length 324 #molecular-weight 36318 #checksum 5888
Query Match 92.5%; Score 49; DB 2; Length 324;

Best Local Similarity 83.3%; Pred. No. 5.05e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
Db 151 KOKWVO 156
|||:|:
OY 1 KOKWVO 6

RESULT 14
ENTRY S76877 #type complete
TITLE hypotheical protein - *Synechocystis* sp. (strain PCC 6803)
ORGANISM #formal_name *Synechocystis* sp.
#variety PCC 6803
DATE 25-Apr-1997 #sequence_revision 25-Apr-1997 #text_change 21-Aug-1998
ACCESSIONS S76877
REFERENCE S74322
#authors Kanekeo, T.; Sato, S.; Kotani, H.; Tanaka, A.; Asamizu, E.; Nakamura, Y.; Miyajima, N.; Hiroseawa, M.; Sugitara, M.; Sasamoto, S.; Kimura, T.; Hosouchi, T.; Matsuno, A.; Muraki, A.; Nakazaki, N.; Naruo, K.; Okumura, S.; Shimpō, S.; Takeuchi, C.; Wada, T.; Watanabe, A.; Yamada, M.; Yasuda, M.; Tabata, S.
#journal DNA Res. (1996) 3:109-136
#title Sequence analysis of the genome of the unicellular cyanobacterium *Synechocystis* sp. PCC6803. II. Sequence determination of the entire genome and assignment of potential protein-coding regions.
#cross-references MUID:97061201
#accession S76877
#status nucleic acid sequence not shown; translation not shown
#molecule_type DNA
#residues 1-145 #label KAN
#cross-references EMBL:D80917; GB:AB001339; NID:g1653836; PID:d1019522; PID:g1653879
#note the nucleotide sequence was submitted to the EMBL Data Library, June 1996

GENETICS
#start_codon GTG
SUMMARY #length 145 #molecular-weight 16561 #checksum 5683

Query Match 88.7%; Score 47; DB 2; Length 145;
Best Local Similarity 66.7%; Pred. No. 9.89e+01;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
Db 61 KOKWVO 66
|||:|:
OY 1 KOKWVO 6

RESULT 15
ENTRY A56740 #type complete
TITLE sperm-egg recognition protein precursor - mouse
ORGANISM #formal_name *Mus musculus* #common_name house mouse
DATE 08-Jul-1995 #sequence_revision 03-Aug-1995 #text_change 21-Aug-1998
ACCESSIONS A56740
REFERENCE A56740
#authors Bookbinder, L.H.; Cheng, A.; Bleil, J.D.
#journal Science (1995) 269:86-89
#title Tissue- and species-specific expression of sp56, a mouse sperm fertilization protein.
#accession A56740
#status preliminary
#molecule_type mRNA
#residues 1-579 #label BOO
#cross-references GB:U17108; NID:9897562; PID:9897563
CLASSIFICATION #superfamily C4b-binding protein alpha chain; complement factor H repeat homology
KEYWORDS #fertilization; homomultimer; peripheral membrane protein; sperm
FEATURE 1-32 #domain signal sequence #status predicted #label SIG\

34-91
96-133
158-218
223-278
283-345
349-411
456-509
SUMMARY #length 579 #molecular-weight 64950 #checksum 4531

Query Match 88.7%; Score 47; DB 2; Length 579;
Best Local Similarity 66.7%; Pred. No. 9.89e+01;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
Db 556 KOKWVO 561
|||:|:
OY 1 KOKWVO 6

RESULT 16
ENTRY S73558 #type complete
TITLE phosphate transport system permease protein *psa* - *Mycoplasma pneumoniae* (ATCC 29342) (SGC3)
ALTERNATE_NAMES hypotheical protein C12.orf651V
ORGANISM #formal_name *Mycoplasma pneumoniae*
#variety ATCC 29342
DATE 27-Feb-1997 #sequence_revision 25-Apr-1997 #text_change 04-Sep-1998
ACCESSIONS S73558
REFERENCE S73327
#authors Himmelreich, R.; Hilbert, H.; Plagens, H.; Pirk, E.; Li, B.C.; Herrmann, R.
#journal Nucleic Acids Res. (1996) 24:4420-4449
#title Complete sequence analysis of the genome of the bacterium *Mycoplasma pneumoniae*.
#cross-references MUID:97105885
#accession S73558
#status preliminary; nucleic acid sequence not shown; translation not shown

GENETICS
#gene *psa*
#genetic_code SGC3
#start_codon GTG
CLASSIFICATION #superfamily periplasmic phosphate permease AG88
SUMMARY #length 651 #molecular-weight 72747 #checksum 725

Query Match 88.7%; Score 47; DB 2; Length 651;
Best Local Similarity 83.3%; Pred. No. 9.89e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
Db 635 KOKWVO 640
|||:|:
OY 1 KOKWVO 6

RESULT 17
ENTRY JC2478 #type complete
TITLE *eotaxin* - rat
ORGANISM #formal_name *Rattus norvegicus* #common_name Norway rat
DATE 21-Feb-1995 #sequence_revision 05-Apr-1995 #text_change 08-Sep-1997
ACCESSIONS JC2478
REFERENCE JC2478
#authors Jose, P.J.; Adcock, I.M.; Griffiths-Johnson, D.A.; Berkman, N.; Wells, T.N.C.; Williams, T.J.; Power, C.A.
#journal Biochem. Biophys. Res. Commun. (1994) 205:768-794
#title Botaxin: Cloning of an eosinophil chemoattractant cytokine and increased mRNA expression in allergen-challenged guinea-pig lungs.

#accession JC2478
##molecule_type mRNA
##residues 1-96 ##label JOS
##cross-references EMBL:X77603; NID:9602551; PID:9602552
COMMENT This protein is identified as a potent eosinophil chemoattractant.
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS glycoprotein
FEATURE
1-23 #domain signal sequence #status predicted #label SIG\
24-96 #product eotaxin #status predicted #label MAT\
93 #binding site carbohydrate (Thr) (covalent) #status predicted
SUMMARY #length 96 #molecular-weight 10695 #checksum 7329

Query Match 86.8%; Score 46; DB 2; Length 96;
Best Local Similarity 83.3%; Pred. No. 1.38e+02;
Matches 5; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 76 KKKWQ 81
QY 1 KKKWQ 6

RESULT 18
ENTRY I48099 #type complete
TITLE eotaxin precursor - guinea pig
ORGANISM #formal_name Cavia porcellus #common_name guinea pig
DATE 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 09-May-1997
ACCESSION I48099
REFERENCE I48099
#authors Rothenberg, M.E.; Luster, A.D.; Lilly, C.M.; Drazen, J.M.; Leder, P.
#journal J. Exp. Med. (1995) 181:1211-1216
#title Constitutive and allergen-induced expression of eotaxin mRNA in the guinea pig lung.
#cross-references MVID:95173589
#accession I48099
##status preliminary; translated from GB/EMBL/DBJ
##molecule_type mRNA
##residues 1-96 ##label RES
##cross-references EMBL:U18941; NID:9687655; PID:9687656
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 96 #molecular-weight 10753 #checksum 7336

Query Match 86.8%; Score 46; DB 2; Length 96;
Best Local Similarity 83.3%; Pred. No. 1.38e+02;
Matches 5; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 76 KKKWQ 81
QY 1 KKKWQ 6

RESULT 19
ENTRY JC2417 #type complete
TITLE monocyte chemoattractant protein-2 - pig
ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
DATE 24-Feb-1995 #sequence_revision 24-Feb-1995 #text_change 03-May-1996
ACCESSION JC2417
REFERENCE JC2417
#authors Hosang, K.; Knoke, I.; Klaudiny, J.; Wempe, F.; Wutke, W.; Scheit, K.H.
#journal Biochem. Biophys. Res. Commun. (1994) 205:148-153
#title Porcine neutrophils express monocyte chemoattractant protein-2 (MCP-2): Analysis by cDNA cloning and northern analysis.
#accession JC2417
##molecule_type mRNA
##residues 1-99 ##label HOS
##experimental_source corpus luteum
CLASSIFICATION #superfamily macrophage inflammatory protein

FEATURE
1-23 #domain signal sequence #status predicted #label SIG\
24-99 #product monocyte chemoattractant protein-2 #status predicted #label MAT
SUMMARY #length 99 #molecular-weight 10903 #checksum 7556

Query Match 86.8%; Score 46; DB 2; Length 99;
Best Local Similarity 100.0%; Pred. No. 1.38e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 80 OKWQ 84
QY 2 OKWQ 6

RESULT 20
ENTRY I48148 #type complete
TITLE Neutrophil attractant protein-1 - guinea pig
ORGANISM #formal_name Cavia porcellus #common_name guinea pig
DATE 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 23-Feb-1997
ACCESSION I48148
REFERENCE I48148
#authors Yoshimura, T.; Johnson, D.G.
#journal J. Immunol. (1993) 151:6225-6236
#title cDNA cloning and expression of guinea pig neutrophil attractant protein-1 (NAP-1): NAP-1 is highly conserved in guinea pig.
#cross-references MVID:94065176
#accession I48148
##status preliminary; translated from GB/EMBL/DBJ
##molecule_type DNA
##residues 1-101 ##label RES
##cross-references GB:L04986; NID:9459764; PID:9459765
GENETICS #gene
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 101 #molecular-weight 11414 #checksum 2363

Query Match 86.8%; Score 46; DB 2; Length 101;
Best Local Similarity 83.3%; Pred. No. 1.38e+02;
Matches 5; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 81 KKKWQ 86
QY 1 KKKWQ 6

RESULT 21
ENTRY A54678 #type complete
TITLE monocyte chemotactic protein 3 precursor - human
ALTERNATE_NAMES monocyte chemoattractant protein MCP-3
ORGANISM #formal_name Homo sapiens #common_name man
DATE 28-Oct-1994 #sequence_revision 28-Oct-1994 #text_change 24-Sep-1998
ACCESSION A54678; JC1478; S32222
REFERENCE A54678
#authors Odenakker, G.; Fiten, P.; Nys, G.; Froyen, G.; Van Roy, N.; Speleman, F.; Laureys, G.; Van Damme, J.
#journal Genomics (1994) 21:403-408
#title The human MCP-3 gene (SCYA7): cloning, sequence analysis, and assignment to the C-C chemokine gene cluster on chromosome 17q11.2-q12.
#accession A54678
##molecule_type DNA
##residues 1-109 ##label OPD
##cross-references GB:X72309
REFERENCE JC1478
#authors Odenakker, G.; Froyen, G.; Fiten, P.; Proost, P.; Van Damme, J.
#journal Biochem. Biophys. Res. Commun. (1993) 191:535-542
#title Human monocyte chemotactic protein-3 (MCP-3): Molecular cloning of the cDNA and comparison with other chemokines.

```
#accession JC1478
#molecule_type mRNA
#residues 1-109 #label OP2
REFERENCE S32222
#authors Minty, A.; Chalon, P.; Guillemot, J.C.; Kaghad, M.; Llaunz,
P.; Magazin, M.; Miloux, B.; Minty, C.; Ramond, P.; Vita,
N.; Luper, J.; Shire, D.; Ferrara, P.; Caput, D.
#submission Submitted to the EMBL Data Library, March 1993
#description Molecular cloning of MCP-3: a human monocyte-derived monocyte
chemoattractant protein.
#accession S32222
#molecule_type mRNA
#residues 1-109 #label MIN
#cross-references EMBL:X1087; NID:g288396; PID:g288397
COMMENT This protein induces proteinase secretion and chemotaxis by
macrophages and monocytes.
GENETICS
#gene GDB:SCYA7; SCYA6; MCP-3
#cross-references GDB:138473; OMIM:158106
#map_position 17q11-17q12
#intron 36/1: 75/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS cytokine; glycoprotein; inflammation
FEATURE
1-33 #domain signal sequence #status predicted #label SIG\
34-109 #product monocyte chemoattractic protein 3 #status
predicted #label MAT\
39 #binding_site carbohydrate (asn) (covalent) #status
predicted
SUMMARY #length 109 #molecular-weight 12356 #checksum 1535
Query Match 86.8%; Score 46; DB 2; Length 109;
Best Local Similarity 100.0%; Pred. No. 1.38e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Db 90 QKWVQ 94
| | | | |
OY 2 QKWVQ 6

RESULT 22
ENTRY I48147 #type complete
ENTRY monocyte chemoattractant protein-1 - guinea pig
TITLE #formal_name Cavia porcellus #common_name guinea pig
ORGANISM 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
DATE 09-May-1997
ACCESSIONS I48147
REFERENCE I48147
#authors Yoshimura, T.
#journal J. Immunol. (1993) 150:5025-5032
#title CDNA cloning of guinea pig monocyte chemoattractant protein-1
and expression of the recombinant protein.
#cross-references MUID:93267104
#accession I48147
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-120 #label RES
#cross-references GB:I04985; NID:g349820; PID:g349821
GENETICS
#gene MCP-1
#superfamily macrophage inflammatory protein
CLASSIFICATION #length 120 #molecular-weight 13741 #checksum 9252
SUMMARY
Query Match 86.8%; Score 46; DB 2; Length 120;
Best Local Similarity 100.0%; Pred. No. 1.38e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Db 78 QKWVQ 82
| | | | |
OY 2 QKWVQ 6

RESULT 23
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ENTRY C71317 #type complete
TITLE hypothetical protein TP0503 - syphilis spirochete
ORGANISM #formal_name Treponema pallidum subsp. pallidum #common_name
syphilis spirochete
DATE 24-Jul-1998 #sequence_revision 24-Jul-1998 #text_change
ACCESSIONS C71317
REFERENCE A71250
#authors Fraser, C.M.; Norris, S.J.; Weinstock, G.M.; White, O.;
Sutton, G.G.; Dodson, R.; Gwin, M.; Hickey, E.K.; Clayton,
R.; Ketchum, K.A.; Sodergren, E.; Hardham, J.M.; McLeod,
M.P.; Salzberg, S.; Peterson, J.; Khalak, H.; Richardson,
D.; Howell, J.K.; Chidambaram, M.; Uitterback, T.; McDonald,
L.; Artlich, P.; Bowman, C.; Cotton, M.D.; Fujii, C.;
Garland, S.; Hatch, B.; Horst, K.; Roberts, K.; Watney,
L.; Weidman, J.; Smith, H.O.; Venter, J.C.
#journal Science (1998) 281:375-388
#title Complete genome sequence of Treponema pallidum, the syphilis
spirochete.
#accession C71317
#status preliminary; nucleic acid sequence not shown;
translation not shown
#molecule_type DNA
#residues 1-187 #label COL
#cross-references GB:AE001226; GB:AE000520; NID:g3322785; PID:g3322795
#experimental_source strain Nichols
GENETICS
#gene TP0503
SUMMARY #length 187 #molecular-weight 21410 #checksum 5750
Query Match 86.8%; Score 46; DB 2; Length 187;
Best Local Similarity 100.0%; Pred. No. 1.38e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Db 37 QKWVQ 41
| | | | |
OY 2 QKWVQ 6

RESULT 24
ENTRY D70452 #type complete
ENTRY leucyl-tRNA synthetase beta subunit - Aquifex aeolicus
TITLE #formal_name Aquifex aeolicus
ORGANISM 08-May-1998 #sequence_revision 08-May-1998 #text_change
DATE 24-Sep-1998
ACCESSIONS D70452
REFERENCE A70300
#authors Decker, G.; Warren, P.V.; Gaasterland, T.; Young, W.G.;
Lenox, A.L.; Graham, D.E.; Overbeek, R.; Sneed, M.A.;
Keller, M.; Aujay, M.; Huber, R.; Feldman, R.A.; Short,
J.M.; Olson, G.J.; Swanson, R.V.
#journal Nature (1998) 392:353-358
#title The complete genome of the hyperthermophilic bacterium
Aquifex aeolicus.
#cross-references MUID:98196666
#accession D70452
#status preliminary; nucleic acid sequence not shown;
translation not shown
#molecule_type DNA
#residues 1-289 #label AOF
#cross-references GB:AE000755; NID:g2984063; PID:g2984068; GB:AE000657
#experimental_source strain VF5
GENETICS
#gene leuS'
#aminoacyl-tRNA synthetase; protein biosynthesis
KEYWORDS #length 289 #molecular-weight 33535 #checksum 8262
SUMMARY
Query Match 86.8%; Score 46; DB 2; Length 289;
Best Local Similarity 100.0%; Pred. No. 1.38e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Db 265 QKWVQ 269
| | | | |
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OY 2 KOKWQ 6

RESULT 25
ENTRY G71228 #type complete
TITLE hypothetical protein PH0089 - Pyrococcus horikoshii
ORGANISM #formal_name Pyrococcus horikoshii
DATE 14-Aug-1998 #sequence_revision 14-Aug-1998 #text_change 14-Aug-1998

ACCESSIONS
REFERENCE G71228
#authors A71000
Kawarabayashi, Y.; Sawada, M.; Horikawa, H.; Halkawa, Y.; Hino, Y.; Yamamoto, S.; Sekine, M.; Baba, S.; Kosugi, H.; Hosoyama, A.; Nagai, Y.; Sakai, M.; Ogura, K.; Otsuka, R.; Nakazawa, H.; Takamiya, M.; Ohtoku, Y.; Funahashi, T.; Tanaka, T.; Kudoh, Y.; Yamazaki, J.; Kishida, N.; Oguchi, A.; Aoki, K.; Yoshizawa, T.; Nakamura, Y.; Robb, F.T.; Horikoshi, K.; Masuchi, Y.; Shizuya, H.; Kikuchi, H.

#journal DNA Res. (1998) 5:55-76
#title Complete sequence and gene organization of the genome of a hyper-thermophilic archaeobacterium, Pyrococcus horikoshii OT3.

ACCESSION #accession G71228
#status preliminary; nucleic acid sequence not shown;
#molecule_type DNA
#residues 1-334 #label RAW
#cross-references GB:AP000001; NID:g3236128; PID:d1030101; PID:g3256475
#experimental_source strain OT3
#note this accession replaces an interim accession for a sequence replaced by GenBank

GENETICS
#gene PH0089
SUMMARY #length 334 #molecular-weight 36602 #checksum 4643

Query Match 86.8%; Score 46; DB 2; Length 334;
Best Local Similarity 66.7%; Pred. No. 1.38e+02;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 290 KKKWVH 295
1-1111:
1 KOKWQ 6

RESULT 26
ENTRY E64019 #type complete
TITLE hypothetical protein HI1054 - Haemophilus influenzae (strain Rd KW20)
ORGANISM #formal_name Haemophilus influenzae
DATE 18-Aug-1995 #sequence_revision 18-Aug-1995 #text_change 10-Oct-1997

ACCESSIONS
REFERENCE E64019
#authors Fleischmann, R.D.; Adams, M.D.; White, O.; Clayton, R.A.; Kirkness, E.F.; Kerlavage, A.R.; Bult, C.J.; Tomb, J.F.; Dougherty, B.A.; Merrick, J.M.; McEnney, K.; Sutton, G.; Fitzhugh, W.; Fields, C.; Gocayne, J.D.; Scott, J.; Shirley, R.; Liu, L.I.; Glodek, A.; Kelley, J.M.; Weidman, J.F.; Phillips, C.A.; Spriges, T.; Hedblom, E.; Cotton, M.D.; Utterback, T.R.; Hanna, M.C.; Nguyen, D.T.; Saudak, D.M.; Brandon, R.C.; Fine, L.D.; Fitchman, J.L.; Fuhmann, J.L.; Geoghegan, N.S.M.; Gnehm, C.L.; McDonald, L.A.; Small, K.V.; Fraser, C.M.; Smith, H.O.; Venter, J.C.

#journal Science (1995) 269:496-512
#title Whole-genome random sequencing and assembly of Haemophilus influenzae Rd.
#cross-references MIMD:95350630.
#accession E64019
#status nucleic acid sequence not shown; translation not shown
#molecule_type DNA
#residues 1-460 #label TIGR
#cross-references GB:U32786; GB:I42023; NID:g1574605; PID:g1574617; TIGR:HI1054

SUMMARY #length 460 #molecular-weight 53471 #checksum 5243

Query Match 86.8%; Score 46; DB 2; Length 460;
Best Local Similarity 100.0%; Pred. No. 1.38e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 288 KOKWV 292
1-1111:
1 KOKWQ 5

RESULT 27
ENTRY E64368 #type complete
TITLE hypothetical protein homolog MJ0549 - Methanococcus jannaschii
ORGANISM #formal_name Methanococcus jannaschii
DATE 13-Sep-1996 #sequence_revision 13-Sep-1996 #text_change 13-Sep-1998

ACCESSIONS
REFERENCE E64368
#authors A64300
Bult, C.J.; White, O.; Olsen, G.J.; Zhou, L.; Fleischmann, R.D.; Sutton, G.G.; Blake, J.A.; Fitzgerald, L.M.; Clayton, R.A.; Gocayne, J.D.; Kerlavage, A.R.; Dougherty, B.A.; Tomb, J.F.; Adams, M.D.; Reich, C.I.; Overbeek, R.; Kirkness, E.F.; Weinstock, K.G.; Merrick, J.M.; Glodek, A.; Scott, J.L.; Geoghegan, N.S.M.; Weidman, J.F.; Fuhmann, J.L.; Nguyen, D.; Utterback, T.R.; Kelley, J.M.; Peterson, J.D.; Sadow, P.W.; Hanna, M.C.; Cotton, M.D.; Roberts, K.M.; Hurst, M.A.; Kaine, B.P.; Borodovsky, M.; Klenk, H.P.; Fraser, C.M.; Smith, H.O.; Woese, C.R.; Venter, J.C.

#journal Science (1996) 273:1038-1073
#title Complete genome sequence of the methanogenic archaeon, Methanococcus jannaschii.
#accession E64368
#cross-references MIMD:96337999
#status preliminary; nucleic acid sequence not shown;
#molecule_type DNA
#residues 1-141 #label BUL
#cross-references GB:U67504; GB:L77117; NID:g1591248; PID:g1591254; TIGR:MJ0549; PID:g1510625

GENETICS
#map_position FOR485581-486006
CLASSIFICATION #superfamily conserved hypothetical protein MJ0080
SUMMARY #length 141 #molecular-weight 16132 #checksum 6417

Query Match 84.9%; Score 45; DB 2; Length 141;
Best Local Similarity 50.0%; Pred. No. 1.90e+02;
Matches 3; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 45 KKKWVH 50
1-1111:
1 KOKWQ 6

RESULT 28
ENTRY F69804 #type complete
TITLE hypothetical protein yfif - Bacillus subtilis
ORGANISM #formal_name Bacillus subtilis
DATE 05-Dec-1997 #sequence_revision 05-Dec-1997 #text_change 24-Sep-1998

ACCESSIONS
REFERENCE F69804
#authors Kunst, F.; Ogasawara, N.; Moszer, I.; Albertini, A.M.; Alloni, G.; Azevedo, V.; Bartero, M.G.; Bessieres, P.; Bolotin, A.; Borchert, S.; Boriss, R.; Bouslier, L.; Brans, A.; Braun, M.; Brignell, S.C.; Bron, S.; Brouillet, S.; Brunsch, C.V.; Caldwell, B.; Capuano, V.; Carter, N.M.; Choi, S.K.; Codani, J.J.; Conerton, J.F.; Cummings, N.J.; Daniel, R.A.; Denizot, F.; Devigne, K.M.; Duesterhoeft, A.; Ehrlich, S.D.; Emerson, P.T.; Entian, K.D.; Errington, J.; Fabret, C.; Ferrari, E.; Fouger, D.; Filtz, C.; Fujita, M.; Fujita, Y.; Fuma, S.; Gallizzi, A.; Galleron, N.; Ghim,

S.Y.: Glaser, P.; Goffeau, A.; Gollightly, E.J.; Grandt, G.; Guisepi, G.; Guy, B.J.; Haga, K.; Haeck, J.; Harwood, C.R.; Henaut, A.; Hilbert, H.; Holsappel, S.; Hosono, S.; Hullo, M.F.; Itaya, M.; Jones, L.; Joris, B.; Karamata, D.; Kashara, Y.; Klier-Blanchard, M.; Klein, C.; Kobayashi, Y.; Koetter, P.; Konungstein, G.; Krogh, S.; Kumano, M.; Kurita, K.; Lapidus, A.; Lardinois, S.; Lauber, J.; Lazarevic, V.; Lee, S.M.; Levine, A.; Liu, H.; Masuda, S.; Mausel, C.; Medigue, C.; Medina, N.; Mellado, R.P.; Mizuno, M.; Moestl, D.; Nakai, S.; Noback, M.; Noone, D.; O'Reilly, M.; Ogawa, K.; Ogihara, A.; Oudega, B.; Park, S.H.; Parro, V.; Pohl, T.M.; Portetle, D.; Porwolik, S.; Prescott, A.M.; Prescan, E.; Pujic, P.; Punnett, B.; Rapoport, G.; Rey, M.; Reynolds, S.; Rieger, M.; Rivolta, C.; Rooba, E.; Roche, B.; Rose, M.; Sadale, Y.; Sato, T.; Scanlon, E.; Schleich, S.; Schwoeler, R.; Sciffone, F.; Sekiguchi, J.; Sekowska, A.; Seror, S.J.; Serro, P.; Shin, B.S.; Soldo, B.; Sorokin, A.; Tacconi, E.; Takagi, T.; Takahashi, H.; Takemaru, K.; Takeuchi, M.; Tanakoshi, A.; Tanaka, T.; Terpstra, P.; Tognoni, A.; Toosto, V.; Uchiyama, S.; Vandenbol, M.; Vannier, F.; Vassartot, A.; Vlati, A.; Wandut, R.; Wedler, E.; Wedler, H.; Weitzenecker, T.; Winters, P.; Wipat, A.; Yamamoto, H.; Yamane, K.; Yasumoto, K.; Yata, K.; Yoshida, K.; Yoshikawa, H.F.; Zumstein, E.; Yoshikawa, H.; Danchin, A.

#journal Nature (1997) 390:249-256
#title The complete genome sequence of the Gram-positive bacterium *Bacillus subtilis*.
#cross-references M01D:98044033
#accession F69804
#status preliminary: nucleic acid sequence not shown;
translation not shown

##molecule-type DNA
##residues 1-178 ##label KUN
##cross-references GB:Z99108; GB:EL009126; NID:G2633055; PID:el182829; PID:G2633163
##experimental_source strain 168

GENETICS
#gene yfiT
SUMMARY #length 178 #molecular-weight 20666 #checksum 340

Query Match 84.9%; Score 45; DB 2; Length 178;
Best Local Similarity 66.7%; Pred. No. 1.90e+02;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 24 KDKWQ 29
1 1 1 1 1
QY 1 KOKWQ 6

RESULT 29
ENTRY A71437
TITLE Probable resistance gene - *Arabidopsis thaliana*
ORGANISM #formal_name *Arabidopsis thaliana*
#variety Columbia
DATE 03-Aug-1998 #sequence_revision 03-Aug-1998 #text_change 03-Aug-1998
ACCESSIONS A71437
REFERENCE A71400

Bevan, M.; Bancroft, I.; Bent, E.; Love, K.; Goodman, H.; Dean, C.; Bergkamp, R.; Dirkse, W.; Van Staveren, M.; Stiekema, W.; Drost, L.; Ridley, P.; Hudson, S.A.; Patel, K.; Murphy, G.; Piffanelli, P.; Wedler, H.; Wedler, E.; Wandut, R.; Weitzenecker, T.; Pohl, T.M.; Terry, N.; Giejen, J.; Villarroel, R.; De Clerck, R.; Van Montagu, M.; Lecharny, A.; Auborg, S.; Gy, I.; Kreis, M.; Lao, N.; Kavanagh, T.; Hempel, S.; Kotter, P.; Entian, K.D.; Rieger, M.; Schaeffer, M.; Funk, B.; Mueller-Auer, S.; Silvey, M.; James, R.; Montfort, A.; Pons, A.; Puigdomenech, P.; Douka, A.; Voukietou, E.; Milioni, D.; Hatzopoulos, P.; Piravandi, E.; Obermaier, B.; Hilbert, H.; Duesterhoft, A.; Moores, T.; Jones, J.D.G.; Eneva, T.; Palme, K.; Benes, V.; Rechman, S.; Ansoorge, W.; Cooke, R.; Berger, C.; Delseny,

M.; Voet, M.; Volckaert, G.; Mewes, H.W.; Klosterman, S.; Schwoeler, C.; Chalvaris, N.
#journal Nature (1998) 391:485-488
#title Analysis of 1.9 Mb of contiguous sequence from chromosome 4 of *Arabidopsis thaliana*.
#cross-references M01D:9812113
#accession A71437
#status preliminary: nucleic acid sequence not shown;
translation not shown

##molecule-type DNA
##residues 1-1038 ##label BEV
##cross-references GB:Z97342; NID:G2245031; PID:E327023; PID:G2245047

GENETICS
#map_position 4COP9-4G3845
SUMMARY #length 1038 #molecular-weight 117379 #checksum 3349

Query Match 84.9%; Score 45; DB 2; Length 1038;
Best Local Similarity 66.7%; Pred. No. 1.90e+02;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 135 KOKWQ 140
1 1 1 1 1
QY 1 KOKWQ 6

RESULT 30
ENTRY S19497
TITLE Hypothetical protein YCR082w - yeast (*Saccharomyces cerevisiae*)
ORGANISM #formal_name *Saccharomyces cerevisiae*
DATE 31-Mar-1992 #sequence_revision 31-Mar-1992 #text_change 14-Nov-1997
ACCESSIONS S19497
REFERENCE S19429
#authors Feldmann, H.; Mannhaupt, G.; Vetter, I.
#submission submitted to the Protein Sequence Database, March 1992
#accession S19497
##molecule-type DNA
##residues 1-128 ##label FEL
##cross-references EMBL:X59720; NID:G1907116; PID:E264569; PID:G1907219; MIPS:YCR082w

GENETICS
#map_position 3R
SUMMARY #length 128 #molecular-weight 15117 #checksum 7537

Query Match 83.0%; Score 44; DB 2; Length 128;
Best Local Similarity 80.0%; Pred. No. 2.62e+02;
Matches 4; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 88 KOKWQ 92
1 1 1 1 1
QY 1 KOKWQ 5

Search completed: Thu Apr 1 07:32:52 1999
Job time : 29 secs.

(214)

RESULT	1	STANDARD	PRT	99 AA
ID	MCPI1 HUMAN			
AC	P13500			
DT	01-JAN-1990 (REL. 13, CREATED)			
DT	01-JAN-1990 (REL. 13, LAST SEQUENCE UPDATE)			
DT	15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)			
DE	MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE CHEMOTACTIC AND ACTIVATING FACTOR) (MCAF) (MONOCYTE SECRETORY PROTEIN 1)			
DE	(MONOCYTE CHEMOTACTIC PROTEIN 1) (HC11) (SMALL INDUCIBLE CYTOKINE A2).			
GN	SCYA2 OR MCPI1			
OS	HOMO SAPIENS (HUMAN)			
OC	EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;			
CC	EUTHERIA; PRIMATES.			
RN	[1]			
RP	SEQUENCE FROM N.A.			
RX	FUTURANI Y., NOKURA H., NOTAKE M., OYAMADA Y., FUKUI T., YAMADA M.,			
RA	LARSEN C.G., OPPENHEIM J.J., MATSUSHITA K.,			
RL	BIOCHEM. BIOPHYS. RES. COMMUN. 159:249-255(1989).			
RN	[2]			
RP	SEQUENCE FROM N.A.			
RX	ROLLINS B.J., STIER P., ERNST T., WONG G.G.,			
RA	MOL. CELL. BIOL. 9:4687-4695(1989).			
RL	[3]			
RN	SEQUENCE FROM N.A.			
RP	MEDLINE: 89153605.			
RA	YOSHIMURA T., YUHKI N., MOORE S.K., APPELLA E., LERMAN M.I.,			
RA	LEONARD E.J.,			
RL	FEBS LETT. 244:487-493(1989).			
RN	[4]			
RP	SEQUENCE FROM N.A.			
RX	MEDLINE: 90290466.			
RA	SHY Y.J., LI Y.S., KOLATUKUDY P.E.,			
RL	BIOCHEM. BIOPHYS. RES. COMMUN. 169:346-351(1990).			
RN	[5]			
RP	SEQUENCE FROM N.A.			
RX	MEDLINE: 91207938.			
RA	CHANG H.C., HSU F., FREEMAN G.J., GRIFFIN J.D., REINHERZ E.L.,			
RL	INT. IMMUNOL. 1:388-399(1989).			
RN	[6]			
RP	SEQUENCE FROM N.A.			
RX	MEDLINE: 94150478.			
RA	LI Y.S., SHY Y.J., WRIGHT J.G., VALENTE A.J., CORNHILL J.F.,			
RA	KOLATUKUDY P.E.,			
RL	MOL. CELL. BIOPHYS. 126:61-68(1993).			
RN	[7]			
RP	SEQUENCE FROM N.A.			
RX	MEDLINE: 92095166.			
RA	YOSHIMURA T., LEONARD E.J.,			
RL	ADV. EXP. MED. BIOL. 305:47-56(1991).			
RN	[8]			
RP	SEQUENCE OF 24-99.			
RX	MEDLINE: 89184525.			
RA	ROBINSON E.A., YOSHIMURA T., LEONARD E.J., TANAKA S., GRIFFIN P.R.,			
RA	SHABANOWITZ J., HUNT D.F., APPELLA E.,			
RL	PROC. NATL. ACAD. SCI. U.S.A. 86:1850-1854(1989).			
RN	[9]			
RP	SEQUENCE OF 29-53 AND 82-92.			
RX	MEDLINE: 90211336.			
RA	DECOCK B., CONINGS R., LENAERTS J.-P., BILIAU A., VAN DAMME J.,			
RA	BIOCHEM. BIOPHYS. RES. COMMUN. 167:904-909(1990).			
RN	[10]			
RP	3D-STRUCTURE MODELLING.			

RX	MEDLINE: 91312872.			
RA	GRONENBORN A.M., CLORE G.M.,			
RL	PROTEIN ENG. 4:263-269(1991).			
RN	[11]			
RP	X-RAY CRYSTALLOGRAPHY (1.85 ANGSTROMS).			
RX	MEDLINE: 97143315.			
RA	LUBKOWSKI J., BUGACZ G., DOMAILLE P.J., HANDEL T.M., WLODANER A.,			
RL	NAT. STRUCT. BIOL. 4:64-69(1997).			
RN	[12]			
RP	STRUCTURE BY NMR.			
RX	MEDLINE: 96234959.			
RA	HANDEL T.M., DOMAILLE P.J.,			
RL	BIOCHEMISTRY 35:6569-6584(1996).			
RN	[13]			
RP	EFFECT OF DELETION OF N-TERMINAL RESIDUES.			
RX	MEDLINE: 96195223.			
RA	WEBER M., UGCCIONI M., BAGGIOLINI M., CLARK-LEWIS I., DAHINDEN C.A.,			
RL	J. EXP. MED. 183:681-685(1996).			
RN	[14]			
RP	MUTAGENESIS.			
RX	MEDLINE: 94253189.			
RA	ZHANG Y.J., RUTLEDGE B.J., ROLLINS B.J.,			
RL	J. BIOL. CHEM. 269:15918-15924(1994).			
RN	[15]			
RP	SUBUNIT.			
RX	MEDLINE: 97053697.			
RA	KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.,			
RL	FEBS LETT. 395:277-282(1996).			
CC	-1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND BASOPHILS			
CC	BUT NOT NEUTROPHILS OR EOSINOPHILS. AUGMENTS MONOCYTE ANTI-TUMOR			
CC	ACTIVITY. HAS BEEN IMPLICATED IN THE PATHOGENESIS OF DISEASES			
CC	CHARACTERIZED BY MONOCYTIC INFILTRATES, LIKE PSORIASIS, RHEUMATOID			
CC	ARTHRITIS OR ATHEROSCLEROSIS. MAY BE INVOLVED IN THE RECRUITMENT			
CC	OF MONOCYTES INTO THE ARTERIAL WALL DURING THE DISEASE PROCESS OF			
CC	ATHEROSCLEROSIS.			
CC	-1- SUBUNIT: MONOMER OR HOMODIMER: IN EQUILIBRIUM.			
CC	-1- PRIM: PROCESSING AT THE N-TERMINUS CAN REGULATE RECEPTOR AND TARGET			
CC	CELL SELECTIVITY. DELETION OF THE AMINO-TERMINAL RESIDUE CONVERTS			
CC	IT FROM AN ACTIVATOR OF BASOPHIL TO AN EOSINOPHIL CHEMOTACTANT.			
CC	-1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE			
CC	C-C) (CHEMOKINE CC).			
DR	EMBL: M31626; G386961; -.			
DR	EMBL: M30816; G386961; JOINED.			
DR	EMBL: M31625; G386961; JOINED.			
DR	EMBL: M24545; G307163; -.			
DR	EMBL: M28226; G338009; -.			
DR	EMBL: X14768; G34514; -.			
DR	EMBL: M37719; G487124; -.			
DR	EMBL: M28225; G338007; -.			
DR	EMBL: M28223; G338007; JOINED.			
DR	EMBL: M28224; G338007; JOINED.			
DR	EMBL: S69738; G545465; -.			
DR	EMBL: S71513; G240868; -.			
DR	EMBL: A17786; G641145; -.			
DR	PIR: A35474; A35474.			
DR	PIR: S03339; S03339.			
DR	PDB: 1DOK; 12-MAR-97.			
DR	PDB: 1DOL; 12-MAR-97.			
DR	PDB: 1DOM; 14-OCT-96.			
DR	PDB: 1DON; 14-OCT-96.			
DR	PIR: 158105; -.			
DR	PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.			
KW	CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; 3D-STRUCTURE.			
FT	SIGNAL	1	23	
FT	CHAIN	24	99	
FT	MOD_RES	24	24	
FT	DISULFID	34	39	
FT	CARBOHYD	35	75	
FT	VARIANT	37	37	
FT	MUTAGEN	76	76	
FT	MUTAGEN	24	24	
FT	MUTAGEN	25	32	

POTENTIAL. A -> T.

MISSING: LOSS OF ACTIVITY.

MISSING: LOSS OF ACTIVITY.

F1 MUTAGEN 24 85 MISSING: 90% REDUCTION IN ACTIVITY.
 F1 MUTAGEN 24 91 MISSING: 83% REDUCTION IN ACTIVITY.
 FT MUTAGEN 26 26 D->A: 90% REDUCTION IN ACTIVITY.
 FT MUTAGEN 29 29 N->A: 50% REDUCTION IN ACTIVITY.
 FT MUTAGEN 47 47 R->F: 95% REDUCTION IN ACTIVITY.
 FT MUTAGEN 50 50 S->Q: 40% REDUCTION IN ACTIVITY.
 FT MUTAGEN 51 51 Y->D: LOSS OF ACTIVITY.
 FT MUTAGEN 53 53 R->L: LOSS OF ACTIVITY.
 FT MUTAGEN 91 91 D->L: 90% REDUCTION IN ACTIVITY.
 SQ SEQUENCE 99 AA: 11025 MW: 53558695 CRC32:

Query Match 100.0% Score 53; DB 1; Length 99;
 Best Local Similarity 100.0%; Pred. No. 4.26e+00;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 79 KOKWQ 84
 1 KOKWQ 6

RESULT 2
 ID MCP2-BOVIN STANDARD; PRT; 99 AA.
 AC 009141;
 DT 01-NOV-1995 (REL. 32, CREATED)
 DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
 DE MONOCYTE CHEMOTACTIC PROTEIN 2).
 OS SCY2 OR MCP2.
 OS BOS TAURUS (BOVINE).
 OS EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 94114084.
 RA WEMPE F., HANES J., SCHEIT K.H.;
 RL DNA CELL BIOL. 13:1-8(1994).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN
 CC CAN BIND HEPARIN.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL: S67954; E118856; -
 DR EMBL: S67956; G544997; -
 DR PROSITE: P500472; SMALL_CYTOKINES_CC; 1.
 DR CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.
 KW SIGNAL
 FT CHAIN 1 23 MONOCYTE CHEMOTACTIC PROTEIN 2.
 FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY
 FT DISULFID 34 59 SIMILARITY).
 FT DISULFID 35 75 BY SIMILARITY.
 GN SEQUENCE 99 AA: 10900 MW: 98A2CD26 CRC32:

Query Match 100.0% Score 53; DB 1; Length 99;
 Best Local Similarity 100.0%; Pred. No. 4.26e+00;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 79 KOKWQ 84
 1 KOKWQ 6

RESULT 3
 ID MCPA-BOVIN STANDARD; PRT; 99 AA.
 AC P28291;
 DT 01-DEC-1992 (REL. 24, CREATED)
 DT 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
 DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1A PRECURSOR (MCP-1A) (ACIDIC
 DE SEMINAL FLUID PROTEIN).
 OS BOS TAURUS (BOVINE).
 OS EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;

OC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-SEMINAL PLASMA;
 RX MEDLINE: 92096117.
 RA WEMPE F., HENSCHEN A., SCHEIT K.H.;
 RL DNA CELL BIOL. 10:671-679(1991).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC TISSUE-SEMINAL PLASMA;
 RX MEDLINE: 92181448.
 RA WEMPE F., EINSPIRER R., SCHEIT K.H.;
 RL BIOCHEM. BIOPHYS. RES. COMMON. 183:232-237(1992).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 9438337.
 RA WEMPE F., KUHLMANN J.K., SCHEIT K.H.;
 RL BIOCHEM. BIOPHYS. RES. COMMON. 202:1272-1279(1994).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
 CC NEUTROPHILS.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL: I32659; G624394; -
 DR EMBL: M84602; G163395; -
 DR PIR: A39296; A39296.
 DR PIR: JC2336; JC2336.
 DR HSSP: P13500; IMCA.
 DR PROSITE: P500472; SMALL_CYTOKINES_CC; 1.
 DR CYTOKINE; CHEMOTAXIS; SIGNAL.
 KW SIGNAL
 FT CHAIN 1 23 BY SIMILARITY.
 FT MOD_RES 24 24 MONOCYTE CHEMOTACTIC PROTEIN 1A.
 FT DISULFID 34 59 PYRROLIDONE CARBOXYLIC ACID (BY
 FT DISULFID 35 75 SIMILARITY).
 GN SEQUENCE 99 AA: 11114 MW: C8F5821D CRC32:

Query Match 100.0% Score 53; DB 1; Length 99;
 Best Local Similarity 100.0%; Pred. No. 4.26e+00;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 79 KOKWQ 84
 1 KOKWQ 6

RESULT 4
 ID MCP1-PTG STANDARD; PRT; 99 AA.
 AC P42831;
 DT 01-NOV-1995 (REL. 32, CREATED)
 DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
 GN SCY2
 OS SUS SCROFA (PTG).
 OS EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 94183284.
 RA HOSANG K., KNOKE I., KLAUDINY J., WEMPE F., WUTTKE W., SCHEIT K.H.;
 RL BIOCHEM. BIOPHYS. RES. COMMON. 199:962-968(1994).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC TISSUE-BRAIN;
 RA ZACH O.R.F.;
 RL SUBMITTED (JUL-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
 CC NEUTROPHILS.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL: Z48479; G683717; -

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DR EMBL: X79416; G872313; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KM CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23 BY SIMILARITY.
FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 1.
FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY
FT DISULFID 34 59 SIMILARITY).
FT DISULFID 35 75 BY SIMILARITY.
SO SEQUENCE 99 AA; 10976 MW; ECC3AFB4 CRC32;

Query Match
Best Local Similarity 100.0%; Score 53; DB 1; Length 99;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 79 KOKWVO 84
|||||
QY 1 KOKWVO 6

RESULT 5 STANDARD: PRT; 101 AA.
AC P52203;
DR 01-OCT-1996 (REL. 34, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DE 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
DE CHEMOTACTIC PROTEIN-1).
GN SCY2 OR MCP1.
OS CANIS FAMILIARIS (DOG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; CARNIVORA.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-JUGULAR VEIN ENDOTHELIAL;
RX MEDLINE: 97176620.
RA KUWAR A.G., BALLANTYNE C.M., MICHAEL L.H., KUKIELA G.L., YONKER K.A.,
RA LINDSEY M.L., HARKINS H.K., BYRDSALL H.H., MACRAY C.R., LAROSA G.J.,
RA ROSSEN R.D., SMITH C.W., EWTAN M.L.;
RL CIRCULATION 95:693-700(1997).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS. IMPORTANT FACTOR IN THE COURSE OF THE INFLAMMATORY
CC REACTION TO REPERFUSION OF THE PREVIOUSLY ISCHEMIC MYOCARDIUM.
CC MAY PLAY A SIGNIFICANT ROLE IN MONOCYTE TRAFFICKING INTO THE
CC REPERFUSED MYOCARDIUM.
CC -1- SUBUNIT: MONOMER OR HOMODIMER. IN EQUILIBRIUM (BY SIMILARITY).
CC -1- INDUCTION: BY TNF-ALPHA.
CC -1- TISSUE SPECIFICITY: ENDOTHELIUM OF SMALL VEINS AND INTRAFASCICULAR
CC VEINS, AND INFILTRATING LEUKOCYTES.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: U29653; G114186; -.
KM PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
DR CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23 BY SIMILARITY.
FT CHAIN 24 101 MONOCYTE CHEMOTACTIC PROTEIN 1.
FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY
FT DISULFID 34 59 SIMILARITY).
FT DISULFID 35 75 BY SIMILARITY.
SO SEQUENCE 101 AA; 11121 MW; A7075814 CRC32;

Query Match
Best Local Similarity 100.0%; Score 53; DB 1; Length 101;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 79 KOKWVO 84
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QY 1 KOKWVO 6

RESULT 6 STANDARD: PRT; 125 AA.
ID MCP1_RABIT

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AC P28292;
DT 01-DEC-1992 (REL. 24, CREATED)
DT 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
GN SCY2.
OS ORYCTOLAGUS CUNICULUS (RABBIT).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; LAGOMORPHA.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-NEW ZEALAND WHITE; TISSUE-SPLEEN;
RX MEDLINE: 91225489.
RA YOSHIMURA T., YOHKI N.;
RL J. IMMUNOL. 146:3483-3488(1991).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS.
CC -1- SUBUNIT: MONOMER OR HOMODIMER. IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: M57440; G165470; -.
DR HSSP: P13500; IMCA.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KM CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
FT SIGNAL 1 23 BY SIMILARITY.
FT CHAIN 24 125 MONOCYTE CHEMOTACTIC PROTEIN 1.
FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY
FT DISULFID 34 59 SIMILARITY).
FT DISULFID 35 75 BY SIMILARITY.
FT CARBOHYD 40 40 POTENTIAL.
FT CARBOHYD 55 55 POTENTIAL.
FT CARBOHYD 112 112 POTENTIAL.
SO SEQUENCE 125 AA; 13776 MW; FBAC9D27 CRC32;

Query Match
Best Local Similarity 100.0%; Score 53; DB 1; Length 125;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 79 KOKWVO 84
|||||
QY 1 KOKWVO 6

RESULT 7 STANDARD: PRT; 98 AA.
ID MCP4_HUMAN
AC O99616;
DR 15-JUL-1998 (REL. 36, CREATED)
DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 4 PRECURSOR (MCP-4) (MONOCYTE
DE CHEMOTACTIC PROTEIN 4) (CK-BETA10) (MCC-1).
GN SCY413 OR MCP4 OR NCCL.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-HEART;
RX MEDLINE: 97113354.
RA GARCIA-ZEPEDA E.A., COMBADIERE C., ROTHENBERG M.E., SARAFI M.N.,
RA LAVIGNE F., HAMID O., MORPHY P.M., LOSTER A.D.;
RL J. IMMUNOL. 157:5613-5626(1996).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS.
CC -1- SUBUNIT: MONOMER OR HOMODIMER. IN EQUILIBRIUM (BY SIMILARITY).
CC -1- INDUCTION: BY TNF-ALPHA.
CC -1- TISSUE SPECIFICITY: ENDOTHELIUM OF SMALL VEINS AND INTRAFASCICULAR
CC VEINS, AND INFILTRATING LEUKOCYTES.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: U29653; G114186; -.
KM PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
DR CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23 BY SIMILARITY.
FT CHAIN 24 101 MONOCYTE CHEMOTACTIC PROTEIN 1.
FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY
FT DISULFID 34 59 SIMILARITY).
FT DISULFID 35 75 BY SIMILARITY.
SO SEQUENCE 101 AA; 11121 MW; A7075814 CRC32;

Query Match
Best Local Similarity 100.0%; Score 53; DB 1; Length 101;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 79 KOKWVO 84
|||||
QY 1 KOKWVO 6

RESULT 8 STANDARD: PRT; 125 AA.
ID MCP1_RABIT

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RA MEDLINE: 97341179.
RA BERTHOFF T.A., SARAU H.M., MOORES K., WHITE J.R., ELSHOURBAGY N.,
RA APPELBAUM E., REAVE T.J., BRANNER M., MARKMAN J., FOLEY J.J.,
RA SCHMIDT D.B., IMBREGIA C., MACMILLY D., MATTHEWS J., O'DONNELL K.,
RA O'SHANNESSEY D., SCOTT M., GROOT P.H.E., MACPHEE C.,
RA J. BIOL. CHEM. 272:16404-16413(1997).
RN [4]
RP SEQUENCE FROM N.A.
RA DANTE M., GIBSON A.,
RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCYTES,
CC BASOPHILS AND EOSINOPHILS, BUT NOT NEUTROPHILS. SIGNALS THROUGH
CC CCR2B AND CCR4 RECEPTORS. PLAYS A ROLE IN THE ACCUMULATION OF
CC LEUKOCYTES AT BOTH SIDES OF ALLERGIC AND NONALLERGIC INFLAMMATION.
CC MAY BE INVOLVED IN THE RECRUITMENT OF MONOCYTES INTO THE ARTERIAL
CC WALL DURING THE DISEASE PROCESS OF ARTEROSCLEROSIS. MAY PLAY A
CC ROLE IN THE MONOCYTE ATTRACTION IN TISSUES CHRONICALLY EXPOSED TO
CC EXOGENOUS PATHOGENS.
CC -1- MASS SPECTROMETRY: MW=9314; MW_ERR=30; METHOD=MALDI; RANGE=17-98.
CC -1- MASS SPECTROMETRY: MW=8760; MW_ERR=30; METHOD=MALDI; RANGE=22-98.
CC -1- MASS SPECTROMETRY: MW=8575; MW_ERR=30; METHOD=MALDI; RANGE=24-98.
CC -1- INDUCTION: BY INTERLEUKIN-1 AND TNF-ALPHA.
CC -1- TISSUE SPECIFICITY: WIDELY EXPRESSED. FOUND IN SMALL INTESTINE,
CC THYMUS, COLON, LUNG, TRACHEA, STOMACH AND LYMPH NODE. LOW LEVELS
CC SEEN IN THE PULMONARY ARTERY SMOOTH MUSCLE CELLS.
CC -1- THIS PROTEIN CAN BIND HEPARIN.
CC -1- PTM: ONE MAJOR ISOFORM MCP-4, AND TWO MINOR ISOFORMS (LA)MCP-4 AND
CC (F)MCP-4 ARE PRODUCED BY DIFFERENTIAL SIGNAL CLEAVAGE.
CC (LA)MCP-4 IS ABOUT 30 FOLD LESS ACTIVE THAN MCP-4.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: U46767; G1732123; -.
DR EMBL: AC002482; G2340091; -.
DR MIM: 601391; -.
UK PROSITE: PS00472; SMALL CYTOKINES, CC; 1.
KM CYTOKINE; CHEMOTAXIS; SIGNAL; GLYCOPROTEIN; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23
FT CHAIN 1 24
FT MOD.RES 24 24
FT DISULFID 34 58
FT DISULFID 35 74
FT CARBOHYD 29 29
SQ SEQUENCE 98 AA; 10986 MW; DF52P6EC CRC32;
Query Match 92.5%; Score 49; DB 1; Length 98;
Best Local Similarity 83.3%; Pred. No. 2.02e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
Db 78 KEKWQ 83
OY 1 KOKWQ 6
RESULT 8
ID IL8 BOVIN STANDARD; PRT; 101 AA.
AC P79255;
DT 01-NOV-1997 (REL. 35, CREATED)
DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8).
GN IL8
OS BOS TAURUS (BOVINE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLA.
RN [1]
RP SEQUENCE FROM N.A.
RA MEDLINE: 96304552.
RA MORSEY M.A., FOPOWYCH Y., KOMALSKI J., GERLACH G., GODSON D.,
RA CAMPOS M., BABIUK L.A.,
RL MICROB. PATHOG. 20:203-212(1996).
CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
CC BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN

CC RESPONSE TO AN INFLAMMATORY STIMULUS (BY SIMILARITY).
CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
CC C-X-C) (CHEMOKINE CXC).
DR EMBL: S82598; G1699354; -.
DR PROSITE: PS00471; SMALL CYTOKINES, CXC; 1.
KM CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 22
FT CHAIN 1 23
FT DISULFID 34 61
FT DISULFID 36 77
SQ SEQUENCE 101 AA; 11291 MW; 0E39C526 CRC32;
Query Match 92.5%; Score 49; DB 1; Length 101;
Best Local Similarity 83.3%; Pred. No. 2.02e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
Db 81 KEKWQ 86
OY 1 KOKWQ 6
RESULT 9
ID IL8 CANFA STANDARD; PRT; 101 AA.
AC P41324;
DT 01-FEB-1995 (REL. 31, CREATED)
DT 01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8).
GN IL8
OS CANIS FAMILIARIS (DOG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; CARNIVORA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 94010328.
RA ISHIKAWA J., SUZUKI S., HOTTA K., HIROTA Y., MIZUNO S., SUZUKI K.,
RL GENE 131:305-306(1993).
RA [2]
RP SEQUENCE FROM N.A.
RC TISSUE-LYMPH NODE:
RX MEDLINE: 95127913.
RA MATSUMOTO Y., MOHAMED A., ONODERA T., KATO H., OHASHI T.,
RA GOITSUKA R., TSUJIMOTO H., HASEGAWA A., FURUSAWA S., YOSHITARA K.,
RA ISHIKAWA J., HOTTA K., SUZUKI K., HIROTA Y.,
RL CYTOKINE 6:455-461(1994).
RN [3]
RP SEQUENCE FROM N.A.
RC STRAIN-MONGREL; TISSUE-JUGULAR VEIN;
RX MEDLINE: 95114148.
RA KUKIELKA G.L., SMITH W.C., LAROSA G.J., MANNING A.M.,
RA MENDOZA L.H., DALY T.J., HUGHES B.J., YOKER K.A., HAWKINS H.K.,
RA MICHAEL L.H., ROT A., ENTMAN M.L.,
RL J. CLIN. INVEST. 95:89-103(1994).
CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
CC BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
CC RESPONSE TO AN INFLAMMATORY STIMULUS.
CC -1- SUBUNIT: HOMODIMER.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
CC C-X-C) (CHEMOKINE CXC).
DR EMBL: D28772; G517100; -.
DR EMBL: U14285; G475152; -.
DR EMBL: U10308; G607814; -.
DR PROSITE: PS00471; SMALL CYTOKINES, CXC; 1.
KM CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 22
FT CHAIN 1 23
FT DISULFID 34 61
FT DISULFID 36 77
SQ SEQUENCE 101 AA; 11280 MW; 7C49D63D CRC32;
Query Match 92.5%; Score 49; DB 1; Length 101;

Best Local Similarity 83.3%; Pred. No. 2.02e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 81 KKWVQ 86
1:|||||
QY 1 KKWVQ 6

RESULT 10
ID IL8-RABIT STANDARD; PRT; 101 AA.
AC P19874;
DT 01-FEB-1991 (REL. 17, CREATED)
DT 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8) (NEUTROPHIL ATTRACTANT/ACTIVATION
PROTEIN-1) (NAP-1) (PERMEABILITY FACTOR 1) (RPL1).
GN IL8.
OS ORYCTOLAGUS CUNICULUS (RABBIT).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; LAGOMORPHA.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-NEW ZEALAND WHITE; TISSUE-SPLEEN;
RX MEDLINE; 91225489.
RA YOSHIMURA T., YUHKI N.;
RL J. IMMUNOL. 146:3483-3488(1991).
RN [2]
RP SEQUENCE OF 23-53.
RC STRAIN-NEW ZEALAND WHITE; TISSUE-PERITONEAL CAVITY;
RX MEDLINE; 91058518.
RA BEARFIELD B.C., COLLINS P.D., JOSE P.J., TOTTY N.F., HSUAN J.,
RL WATERFIELD M.D., WILLIAMS T.J.;
RN BIOCHEM. J. 271:797-801(1990).
CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
RESPONSE TO AN INFLAMMATORY STIMULUS.
CC -1- SUBUNIT: HOMODIMER.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
C-X-C) (CHEMOKINE CXCL).
CC DR EMBL; M57439; G165553; -.
DR PIR; S13052; S13052.
DR HSSP; P10145; 31L8.
DR PROSITE; PS00471; SMALL CYTOKINES CXCL; 1.
KM CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
RN [1]
GN SIGNAL
FT CHAIN 23 101 INTERLEUKIN-8.
FT DISULFID 34 61 BY SIMILARITY.
FT DISULFID 36 77 BY SIMILARITY.
FT CONFLICT 50 50 K -> I (IN REF. 2).
SQ SEQUENCE 101 AA; 11402 MW; CB32CC30 CRC32;

Query Match 92.5%; Score 49; DB 1; Length 101;
Best Local Similarity 83.3%; Pred. No. 2.02e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 81 KKWVQ 86
1:|||||
QY 1 KKWVQ 6

RESULT 11
ID IL8-SHEEP STANDARD; PRT; 101 AA.
AC P36923;
DT 01-JUN-1994 (REL. 29, CREATED)
DT 01-JUN-1994 (REL. 29, LAST SEQUENCE UPDATE)
DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8).
GN IL8.
OS OVIS ARIES (SHEEP).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLA.
RN [1]

RP SEQUENCE FROM N.A.
RX MEDLINE; 95121931.
RA LEGSELOIS I., GREENLAND T., ARNAUD P., MORNEX J.F., CORDIER G.;
RL GENE 150:367-369(1994).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE; 95137691.
RA SEOM H.F., YOSHIMURA T., WOOD P.R., COLDITZ I.G.;
RL IMMUNOL. CELL BIOL. 72:398-405(1994).
CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
RESPONSE TO AN INFLAMMATORY STIMULUS.
CC -1- SUBUNIT: HOMODIMER.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
C-X-C) (CHEMOKINE CXCL).
CC DR EMBL; X78306; G463254; -.
DR EMBL; S74436; G786591; -.
DR PIR; S42496; S42496.
DR HSSP; P10145; 31L8.
DR PROSITE; PS00471; SMALL CYTOKINES CXCL; 1.
KM CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
RN [1]
GN SIGNAL
FT CHAIN 23 101 INTERLEUKIN-8.
FT DISULFID 34 61 BY SIMILARITY.
FT DISULFID 36 77 BY SIMILARITY.
SQ SEQUENCE 101 AA; 11292 MW; 5A574527 CRC32;

Query Match 92.5%; Score 49; DB 1; Length 101;
Best Local Similarity 83.3%; Pred. No. 2.02e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 81 KKWVQ 86
1:|||||
QY 1 KKWVQ 6

RESULT 12
ID IL8-PIG STANDARD; PRT; 103 AA.
AC P26894; P22951;
DT 01-AUG-1991 (REL. 19, CREATED)
DT 01-AUG-1992 (REL. 23, LAST SEQUENCE UPDATE)
DT 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8) (ALVEOLAR MACROPHAGE CHEMOTACTIC FACTOR
I) (AMCF-1).
GN IL8.
OS SUS SCROFA (PIG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE; 94103307.
RA LIN G., PEARSON A.E., SCAMURRA R.W., ZHOU Y., BAARSCH M.J.,
RA WEISS D.J., MURTAUGH M.P.;
RL J. BIOL. CHEM. 269:77-85(1994).
RN [2]
RP SEQUENCE FROM N.A.
RA SANJANMALA M.;
RL SUBMITTED (JUL-1991) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [3]
RP SEQUENCE FROM N.A., AND SEQUENCE OF 26-45.
RC TISSUE-LUNG;
RX MEDLINE; 93041741.
RA GOODMAN R.B., FOSTER D.C., MATHEWS S.L., OSBORN S.G., KUIJPER J.L.,
RA FORSTROM J.W., MARTIN T.R.;
RL BIOCHEMISTRY 31:10483-10490(1992).
RN [4]
RP REVISION TO 23.
RA GOODMAN R.B.;
RL SUBMITTED (MAR-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [5]
RP SEQUENCE OF 26-45.
RC STRAIN-YORKSHIRE;

RX MEDLINE: 91217086.
 RA GOODMAN R.B., FORSTROM J.W., OSBORN S.G., CHI E.Y., MARTIN T.R.;
 RL J. BIOL. CHEM. 266:8455-8463(1991).
 CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
 BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
 CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
 CC RESPONSE TO AN INFLAMMATORY STIMULUS.
 CC -1- SUBUNIT: HOMODIMER.
 CC -1- TISSUE SPECIFICITY: ALVEOLAR MACROPHAGES.
 CC -1- INDUCTION: BY LIPOPOLYSACCHARIDE.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 CC C-X-C) (CHEMOKINE CX-C).
 DR EMBL: M86923; G164521; -.
 DR EMBL: X61151; G516197; -.
 DR EMBL: M99367; G1235612; -.
 DR PIR: A44253; A44253.
 DR PIR: A39819; A39819.
 DR HSSP: P10145; 3118.
 DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
 DR CYTOKINE; CHEMOKINES; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 25
 FT CHAIN 26 103
 FT DISULFID 34 61
 FT DISULFID 36 77
 FT CONFLICT 33 34
 FT CONFLICT 87 87
 FT CONFLICT 87 87
 SQ SEQUENCE 103 AA: 11633 MW: A012D59D CRC32;
 Query Match 92.5%; Score 49; DB 1; Length 103;
 Best Local Similarity 83.3%; Pred. No. 2,02e+01;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 81 KKKWVQ 86
 1:1111
 1 KKKWVQ 6

RESULT 13
 ID PSTA_MYCPN STANDARD; PRT; 651 AA.
 AC P75185;
 DT 01-NOV-1997 (REL. 35, CREATED)
 DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
 DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
 DE PHOSPHATE TRANSPORT SYSTEM PERMEASE PROTEIN PSTA HOMOLOG.
 GN PSTA.
 OS MYCOPLASMA PNEUMONIAE.
 OC PROKARYOTA; TENERICUTES; MOLICUTES; MYCOPLASMA; MYCOPLASMATALES;
 OC MYCOPLASMATACEAE.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-ATCC 29342 / M129;
 RX MEDLINE: 97105885.
 RA HIMMELREICH R., HILBERT H., PLAGENS H., PIRKL E., LI B.-C.,
 RA HERRMANN R.;
 RL NUCLEIC ACIDS RES. 24:4420-4449(1996).
 CC -1- FUNCTION: COULD BE PART OF A BINDING-PROTEIN-DEPENDENT TRANSPORT
 CC SYSTEM FOR PHOSPHATE. PROBABLY RESPONSIBLE FOR THE TRANSLLOCATION
 CC OF THE SUBSTRATE ACROSS THE MEMBRANE (BY SIMILARITY).
 CC -1- SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN (POTENTIAL).
 CC -1- SIMILARITY: WITH INTEGRAL MEMBRANE COMPONENTS OF OTHER BINDING-
 CC PROTEIN-DEPENDENT TRANSPORT SYSTEMS. BELONGS TO THE CISTM
 CC SUBFAMILY.
 DR EMBL: AE000023; G1673899; -.
 DR PROSITE: PS00402; BPD_TRANSP_INN_MEMBER; FALSE NEG.
 KW TRANSPORT; PHOSPHATE TRANSPORT; TRANSMEMBRANE.
 FT TRANSMEM 22 42
 FT TRANSMEM 64 84
 FT TRANSMEM 107 127
 FT TRANSMEM 143 163
 FT TRANSMEM 368 388
 FT TRANSMEM 417 437
 FT TRANSMEM 451 471
 FT TRANSMEM 486 506
 POTENTIAL.
 POTENTIAL.
 POTENTIAL.
 POTENTIAL.
 POTENTIAL.
 POTENTIAL.
 POTENTIAL.

FT TRANSMEM 535 555 POTENTIAL.
 FT TRANSMEM 613 633 POTENTIAL.
 SQ SEQUENCE 651 AA: 72747 MW: A480C49C CRC32;
 Query Match 88.7%; Score 47; DB 1; Length 651;
 Best Local Similarity 83.3%; Pred. No. 4,26e+01;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 635 KKKWVQ 640
 1:1111
 1 KKKWVQ 6

RESULT 14
 ID EOTA_CAVPO STANDARD; PRT; 96 AA.
 AC P80325;
 DT 01-JUN-1994 (REL. 29, CREATED)
 DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
 GN SCV411.
 OS CAVIA PORCELLUS (GUINEA PIG).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-LUNG.
 RC MEDLINE: 95173589.
 RA ROTHENBERG M.E., LUSTER A.D., LILLY C.M., DRAZEN J.M., LEDER P.;
 RA J. EXP. MED. 181:1211-1216(1995).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 95091818.
 RA JOSE P.J., ADCOCK I.M., GRIFFITHS-JOHNSON D.A., BERKMAN N.,
 RA WELLS T.C., WILLIAMS T.J., POWER C.A.;
 RA BIOCHEM. BIOPHYS. RES. COMMUN. 205:788-794(1994).
 RN [3]
 RP SEQUENCE OF 24-96.
 RC STRAIN-HARTLEY; TISSUE-LUNG;
 RX MEDLINE: 94157409.
 RA JOSE P.J., GRIFFITHS-JOHNSON D.A., COLLINS P.D., WALSH D.T.,
 RA MOOREL R., TORY N.F., TRUONG O., HSUAN J.J., WILLIAMS T.J.;
 RL J. EXP. MED. 179:881-887(1994).
 CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
 CC DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
 CC FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.
 CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
 CC -1- TISSUE SPECIFICITY: LUNG.
 CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL: U18941; G687656; -.
 DR EMBL: X77603; G602552; -.
 DR HSSP: P13500; IMCA.
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 DR EOSINOPHIL; CYTOKINE; CHEMOKINES; GLYCOPROTEIN; SIGNAL;
 KW INFLAMMATORY RESPONSE.
 FT SIGNAL 1 23
 FT CHAIN 24 96
 FT DISULFID 31 56
 FT DISULFID 32 72
 FT CARBOHYD 93 93
 FT CONFLICT 88 88
 FT CONFLICT 88 88
 SQ SEQUENCE 96 AA: 10753 MW: DD28C7E5 CRC32;
 Query Match 86.8%; Score 46; DB 1; Length 96;
 Best Local Similarity 83.3%; Pred. No. 6,15e+01;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 76 KKKWVQ 81
 1:1111
 1 KKKWVQ 6

RESULT 15
 ID EOTA_HUMAN STANDARD: PRT: 97 AA.
 AC P51671.PS0877; 092490; 092491;
 DT 01-OCT-1996 (REL. 34, CREATED)
 DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
 DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
 DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
 OS SCYLLA.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 96181758.
 RA GARCIA-ZEBEDA E.A., ROTHENBERG M.E., OMNEY T.R., LEDER P.,
 RA LUSTER A.D.;
 RL NAT. MED. 2:449-456(1996).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 96189937.
 RA POWATH P.D., QIN S., RINGLER D.J., CLARK-LEWIS I., WANG J., KASSAM N.,
 RA SMITH H., SHI X., GONZALO J.A., NEWMAN W., GUTIERREZ-RAMOS J.C.,
 RA MACKAY C.R.;
 RL J. CLIN. INVEST. 97:604-612(1996).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX TISSUE-SMALL INTESTINE;
 RC MEDLINE: 96205964.
 RA KITAHARA M., NAKAJIMA T., IMAI T., HARADA S., COMBADIERE C.,
 RA TIFFANY H.L., MURPHY P.M., YOSHIE O.;
 RL J. BIOL. CHEM. 271:7725-7730(1996).
 RN [4]
 RP SEQUENCE FROM N.A., SEQUENCE OF 60-65 AND 75-88, AND VARIANTS.
 RC TISSUE-FORESKIN;
 RX MEDLINE: 96374440.
 RA BARTELS J., SCHLUETER C., RICHTER E., NOSO N., KULKE R.,
 RA CHRISTOPHERS E., SCHROEDER J.M.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 225:1045-1051(1996).
 RN [5]
 RP SEQUENCE FROM N.A.
 RC TISSUE-PLACENTA;
 RX MEDLINE: 97312708.
 RA GARCIA-ZEBEDA E.A., ROTHENBERG M.E., WEREMOWICZ S., SARAFI M.N.,
 RA MORTON C.C., LUSTER A.D.;
 RL GENOMICS 41:471-476(1997).
 RN [6]
 RP SEQUENCE FROM N.A.
 RC TISSUE-LUNG;
 RX MEDLINE: 97445071.
 RA HEIN H., SCHLUETER C., KULKE R., CHRISTOPHERS E., SCHROEDER J.M.,
 RA BARTELS J.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 237:537-542(1997).
 CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
 DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
 FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.
 CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
 CC -1- PTM: O-GLYCOSYLATED (PROBABLY).
 CC -1- INDUCTION: BY TNF-ALPHA, IL-1-ALPHA AND INTERFERON GAMMA.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 C-C) (CHEMOKINE CC).
 CC EMBL: U46573; G1280141; -
 DR EMBL: U34780; G1185440; -
 DR EMBL: D49372; G1552241; -
 DR EMBL: Z69291; E221070; -
 DR EMBL: Z75668; E251275; -
 DR EMBL: Z75669; E251258; -
 DR EMBL: U46572; G2088509; -
 DR EMBL: Z92709; E329504; -
 DR MIM: 601156; -
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 DR EOSINOPHIL: CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
 KW INFLAMMATORY RESPONSE; POLYMORPHISM.

FT SIGNAL 1 23 POTENTIAL.
 FT CHAIN 24 97 EOTAXIN.
 FT DISULFID 32 57 BY SIMILARITY.
 FT DISULFID 33 73 BY SIMILARITY.
 FT VARIANT 7 7 L -> P (IN CLONE 34).
 FT VARIANT 23 23 L -> T (IN CLONE 53).
 FT VARIANT 51 51 R -> S (IN CLONE 34).
 FT VARIANT 79 79 K -> R (IN CLONE 53).
 SQ SEQUENCE 97 AA: 10732 MW; 6C0F3D98 CRC32;
 Query Match 86.8%; Score 46; DB 1; Length 97;
 Best Local Similarity 83.3%; Pred. No. 6,15e+01;
 Matches 5; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 Db 77 KKKWVQ 82
 QY 1 KKKWVQ 6
 RESULT 16
 ID EOTA_MOUSE STANDARD: PRT: 97 AA.
 AC P48298;
 DT 01-FEB-1996 (REL. 33, CREATED)
 DT 01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
 OS SCYLLA.
 OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX TISSUE-LUNG;
 RC MEDLINE: 96004658.
 RA ROTHENBERG M.E., LUSTER A.D., LEDER P.;
 RL PROC. NATL. ACAD. SCI. U.S.A. 92:8960-8964(1995).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC STRAIN-C57BL/6J; TISSUE-LUNG;
 RX MEDLINE: 96158746.
 RA GONZALO J.-A., JIA G.-Q., AGUIRRE V., FRIEND D., COYLE A.J.,
 RA JENKINS N.A., LIN G.-S., KATZ H., LICHTMAN A., COPELAND N.G., KOPF M.,
 RA GUTIERREZ-RAMOS J.-C.;
 RL IMMUNITY 4:1-14(1996).
 CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
 DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS (A PROMINENT
 FEATURE OF ALLERGIC INFLAMMATORY REACTIONS), BUT NOT
 LYMPHOCYTES, MACROPHAGES OR NEUTROPHILS.
 CC -1- TISSUE SPECIFICITY: EXPRESSED CONSTITUTIVELY IN THE THYMUS.
 CC EXPRESSION INDUCIBLE IN THE LUNG (TYPE I ALVEOLAR EPITHELIAL
 CELLS), INTESTINE, HEART, SPLEEN, KIDNEY.
 CC -1- INDUCTION: BY INTERFERON-GAMMA AND LIPOPOLYSACCHARIDE (LPS).
 CC -1- PTM: O-GLYCOSYLATED (PROBABLY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 C-C) (CHEMOKINE CC).
 CC EMBL: U26426; G995911; -
 DR EMBL: U40672; G111937; -
 DR MGD: MGI:103576; SCYLLA.
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 DR EOSINOPHIL: CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
 KW INFLAMMATORY RESPONSE.
 FT SIGNAL 1 23 POTENTIAL.
 FT CHAIN 24 97 EOTAXIN.
 FT DISULFID 32 57 BY SIMILARITY.
 FT DISULFID 33 73 BY SIMILARITY.
 SQ SEQUENCE 97 AA: 10893 MW; F85A96BC CRC32;
 Query Match 86.8%; Score 46; DB 1; Length 97;
 Best Local Similarity 83.3%; Pred. No. 6,15e+01;
 Matches 5; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 Db 77 KKKWVQ 82

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OY      1      11111
        1 KKKWVQ 6

RESULT  17
ID      EOTA_RAT      STANDARD:      PRT:      97 AA.
AC      P97545; 008780;
DT      15-JUL-1998 (REL. 36, CREATED)
DT      15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
DT      15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE      EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
OS      RATUUS NORVEGICUS (RAT).
OC      EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
        EUTHERIA; RODENTIA.
        (1)
RP      SEQUENCE FROM N.A.
RA      WILLIAMS C.M., NEWTON D.J., WILSON S.A., COLEMAN J.C.,
RA      FLANAGAN B.F.;
RM      SUBMITTED (DEC-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
        [2]
RP      SEQUENCE FROM N.A.
RC      TISSUE=LUNG;
RA      ISHII Y.;
RL      SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
CC      -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
        DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
        FEATURE OF ALLERGIC INFLAMMATORY REACTIONS (BY SIMILARITY).
CC      -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
CC      -1- PTM: O-GLYCOSYLATED (PROBABLE).
CC      -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
        C-C) (CHEMOKINE CC).
DR      EMBL: Y08358; E274141;
DR      EMBL: U96637; G2098785;
DR      PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW      EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
KM      INFLAMMATORY RESPONSE.
FT      SIGNAL      1      23      POTENTIAL.
FT      CHAIN      24      97      EOTAXIN.
FT      DISULFID      32      57      BY SIMILARITY.
FT      DISULFID      33      73      BY SIMILARITY.
FT      CARBOHYD      94      94      POTENTIAL.
FT      CONFLICT      3      3      L-> S (IN REF. 2).
SQ      SEQUENCE      97 AA; 10851 MW; 05B4BD45 CRC32;

Query Match      86.8%; Score 46; DB 1; Length 97;
Best Local Similarity 83.3%; Pred. No. 6.15e+01;
Matches      5; Conservative      0; Mismatches      1; Indels      0; Gaps      0;

DB      77 KKKWVQ 82
        11111
OY      1 KKKWVQ 6

RESULT  18
ID      MCP3_PIG      STANDARD:      PRT:      99 AA.
AC      P49673;
DT      01-OCT-1996 (REL. 34, CREATED)
DT      01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT      15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE      MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
        CHEMOATTRACTANT PROTEIN 2).
OS      SCVIA8 OR MCP2.
OC      SUS SCROFA (PIG).
OC      EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
        EUTHERIA; ARTIODACTYLA.
        [1]
RP      SEQUENCE FROM N.A.
RA      MEDLINE: 95091716.
RA      HOSANG K.K., KNOKE I.I., KLAUDINY J.J., WEMPE F.F., WUTYKE W.W.,
RA      SCHMIT K.K.;
RL      BIOCHEM. BIOPHYS. RES. COMMUN. 205:148-153(1994).
CC      -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN
        CAN BIND HEPARIN.

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CC      -1- SUBUNIT: MONOMER OR HOMODIMER. IN EQUILIBRIUM (BY SIMILARITY).
CC      -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
        C-C) (CHEMOKINE CC).
DR      PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW      CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.
FT      SIGNAL      1      23      BY SIMILARITY.
FT      CHAIN      24      99      MONOCYTE CHEMOTACTIC PROTEIN 2.
FT      MOD_RES      24      24      PYRROLIDONE CARBOXYLIC ACID (BY
        SIMILARITY).
FT      DISULFID      34      59      BY SIMILARITY.
FT      DISULFID      35      75      BY SIMILARITY.
SQ      SEQUENCE      99 AA; 10903 MW; B7620BCF CRC32;

Query Match      86.8%; Score 46; DB 1; Length 99;
Best Local Similarity 100.0%; Pred. No. 6.15e+01;
Matches      5; Conservative      0; Mismatches      0; Indels      0; Gaps      0;

DB      80 QKWVQ 84
        11111
OY      2 QKWVQ 6

RESULT  19
ID      MCP3_HUMAN      STANDARD:      PRT:      99 AA.
AC      P80098;
DT      01-DEC-1992 (REL. 24, CREATED)
DT      01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT      15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE      MONOCYTE CHEMOTACTIC PROTEIN 3 PRECURSOR (MCP-3) (MONOCYTE
        CHEMOATTRACTANT PROTEIN 3) (NC28).
OS      SCVIA8 OR MCP3.
OS      HOMO SAPIENS (HUMAN).
OC      EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
        EUTHERIA; PRIMATES.
        [1]
RP      SEQUENCE FROM N.A., AND SEQUENCE OF 31-67 AND 71-99.
RA      MEDLINE: 93213290.
RA      OPDENAKKER G., FROYEN G., FITTEN P., PROOST P., VAN DAMME J.;
RL      BIOCHEM. BIOPHYS. RES. COMMUN. 191:535-542(1993).
        [2]
RP      SEQUENCE FROM N.A.
RA      MEDLINE: 94375065.
RA      OPDENAKKER G., FITTEN P., NTS G., FROYEN G., VAN ROY N., SPELLEMAN F.,
RA      LAUREYS G., VAN DAMME J.;
RL      GENOMICS 21:403-408(1994).
        [3]
RP      SEQUENCE FROM N.A.
RA      MEDLINE: 93305913.
RA      MINTY A., CHALON P., GUILLEMOT J.C., KAGHAD M., LIAUDUN P.,
RA      MAGAZIN M., MILLOUX B., MINTY C., RAMOND P., VITA N., LUPPER J.,
RA      SHIRE D., FERRARA P., CAPUT D.;
RL      EUR. CYTOKINE NETW. 4:99-110(1993).
        [4]
RP      SEQUENCE OF 30-99.
RC      TISSUE=OSTEOSARCOMA;
RX      MEDLINE: 92308855.
RA      VAN DAMME J., PROOST P., LENAERTS J.-P., OPDENAKKER G.;
RL      J. EXP. MED. 176:59-65(1992).
        [5]
RP      STRUCTURE BY NMR, AND SUBUNIT.
RX      MEDLINE: 97053697.
RA      KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.;
RL      FEBS LETT. 395:277-282(1996).
        [6]
RP      STRUCTURE BY NMR.
RX      MEDLINE: 97263733.
RA      MEUNIER S., BERNASSAU J.-M., GUILLEMOT J.-C., FERRARA P., DARBON H.;
RL      BIOCHEMISTRY 36:4412-4422(1997).
CC      -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND
        EOSINOPHILS, BUT NOT NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR
        ACTIVITY. ALSO INDUCES THE RELEASE OF GELATINASE B. THIS PROTEIN
        CAN BIND HEPARIN.

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CC -1- SUBUNIT: MONOMER.
CC -1- PTM: O-GLYCOSYLATED.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL; X72308; G313708; ALT_INIT.
DR EMBL; X72309; -; NOT_ANNOTATED_CDS.
DR EMBL; X71087; G288399; -.
DR EMBL; X71087; G288398; ALT_INIT.
DR EMBL; X71087; G288397; ALT_INIT.
DR PIR; JC1478; JC1478.
DR PIR; S32222; S32222.
DR PIR; A54678; A54678.
DR PDB; 1NCV; 15-OCT-97.
DR MIM; 158106; -.
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; HEPARIN-BINDING; GLYCOPROTEIN; SIGNAL;
KW INFLAMMATORY_RESPONSE; 3D-STRUCTURE.
FT SIGNAL 1 23
FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 3.
FT MOD_RES 24 24 PYROLIDONE CARBOXYLIC ACID.
FT DISULFID 34 59 BY SIMILARITY.
FT DISULFID 35 75 BY SIMILARITY.
FT CARBOHYD 29 29 POTENTIAL.
FT CONFLICT 30 30 T -> K (IN REF. 4).
FT CONFLICT 68 70 MISSING (IN REF. 4).
SQ SEQUENCE 99 AA; 11200 MW; 7502E19C CRC32;

Query Match 86.8%; Score 46; DB 1; Length 99;
Best Local Similarity 100.0%; Pred. No. 6.15e+01;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 80 OKWVQ 84
|||||
QY 2 OKWVQ 6

RESULT 20
ID IL8_CAVPO STANDARD; PRT: 101 AA.
AC P48113.
DT 01-FEB-1996 (REL. 33, CREATED)
DT 01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
DT 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8) (NEUTROPHIL ATTRACTANT PROTEIN 1)
DE (NAP-1).
GN IL8
OS CAVIA PORCELLUS (GUINEA PIG).
KW EUDAROTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
KW EUTHERIA; RODENTIA.
KW [1]
RP SEQUENCE FROM N.A.
RC TISSUE-SPLEEN.
RX MEDLINE; 94065176.
RA YOSHIMURA T.; JOHNSON D.G.;
RL J. IMMUNOL. 151:6225-6236(1993).
CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
CC BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
CC RESPONSE TO AN INFLAMMATORY STIMULUS (BY SIMILARITY).
CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
CC C-X-C) (CHEMOKINE CXCL).
DR EMBL; L04986; G459765; -.
DR PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY_RESPONSE; SIGNAL.
FT SIGNAL 1 22
FT CHAIN 23 101 INTERLEUKIN-8.
FT DISULFID 34 61 BY SIMILARITY.
FT DISULFID 36 77 BY SIMILARITY.
SQ SEQUENCE 101 AA; 11414 MW; E13FB521 CRC32;

Query Match 86.8%; Score 46; DB 1; Length 101;
Best Local Similarity 83.3%; Pred. No. 6.15e+01;
Matches 5; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

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Db 81 KKKVQ 86
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QY 1 KKKVQ 6

RESULT 21
ID MCP1_CAVPO STANDARD; PRT: 120 AA.
AC Q08782.
DT 01-NOV-1995 (REL. 32, CREATED)
DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
DE CHEMOTRACTANT PROTEIN-1).
GN SCYA2 OR MCP1.
OS CAVIA PORCELLUS (GUINEA PIG).
KW EUDAROTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
KW EUTHERIA; RODENTIA.
KW [1]
RP SEQUENCE FROM N.A.
RC STRAIN-2; TISSUE-SPLEEN;
RX MEDLINE; 93267104.
RA YOSHIMURA T.;
RL J. IMMUNOL. 150:5025-5032(1993).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS.
CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL; L04985; G349821; -.
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY_RESPONSE; GLYCOPROTEIN.
FT SIGNAL 1 23
FT CHAIN 24 120 MONOCYTE CHEMOTACTIC PROTEIN 1.
FT MOD_RES 24 24 PYROLIDONE CARBOXYLIC ACID (BY
FT DISULFID 33 57 SIMILARITY).
FT DISULFID 34 73 BY SIMILARITY.
FT CARBOHYD 97 97 POTENTIAL.
SQ SEQUENCE 120 AA; 13741 MW; 22FAD257 CRC32;

Query Match 86.8%; Score 46; DB 1; Length 120;
Best Local Similarity 100.0%; Pred. No. 6.15e+01;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 78 OKWVQ 82
|||||
QY 2 OKWVQ 6

RESULT 22
ID EL1_BOVIN STANDARD; PRT: 266 AA.
AC Q28153.
DT 01-NOV-1997 (REL. 35, CREATED)
DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE ELASTASE 1 PRECURSOR (EC 3.4.21.36).
GN ELA1
OS BOS TAURUS (BOVINE).
KW EUDAROTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
KW EUTHERIA; ARTIODACTYLA.
KW [1]
RP SEQUENCE FROM N.A.
RC STRAIN-HOLSTEIN-FRIESIAN; TISSUE-PANCREAS;
RX MEDLINE; 98079203.
RA GESTIN M.; LE HEROU-LURON I.; WICKER-PLANGUANT C.; LE DREAN G.;
RA CHAIX J.C.; PUTSEYER A.; GUILLOTTEAU P.;
RL COMP. BIOCHEM. PHYSIOL. 118B:181-187(1997).
CC -1- CATALYTIC ACTIVITY: HYDROLYSIS OF PROTEINS, INCLUDING ELASTIN.
CC PREFERENTIAL CLEAVAGE: ALA-1-XAA.
CC -1- SIMILARITY: BELONGS TO PEPTIDASE FAMILY S1; ALSO KNOWN AS THE
CC TRYPSIN FAMILY.
DR EMBL; M80838; G163484; -.

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DR PROSITE: PS00134; TRYPSIN_HIS; 1.
 KM PROSITE: PS00135; TRYPSIN_SER; 1.
 FT HYDROLASE; SERINE PROTEASE; ZYMOGEN; PANCREAS; SIGNAL.
 FT SIGNAL 1 16
 FT PROPEP 17 26
 FT CHAIN 27 266
 FT DISULFID 56 72
 FT DISULFID 153 220
 FT DISULFID 184 200
 FT DISULFID 210 240
 FT ACT_SITE 71 71
 FT ACT_SITE 119 119
 FT ACT_SITE 214 214
 FT CARBOHYD 87 87
 FT CARBOHYD 241 241
 SQ SEQUENCE 266 AA; 28518 MW; A4749F99 CRC32;
 Query Match 86.8%; Score 46; DB 1; Length 266;
 Best Local Similarity 100.0%; Pred. No. 6.15e+01;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Db 62 KOKMV 66
 QY 1 KOKMV 5
 RESULT 23
 ID YBOF_SCHPO STANDARD; PRT; 396 AA.
 AC P87156;
 DT 15-JUL-1998 (REL. 36, CREATED)
 DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE HYPOTHETICAL 44.3 KD PROTEIN C25H2.15 IN CHROMOSOME 11.
 GN SPBC25H2.15.
 OS SCHIZOSACCHAROMYCES POMBE (FISSION YEAST).
 OC EUKARYOTA; FUNGI; ASCOMYCOTINA; HEMIASCOMYCETES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-972;
 RA DURSIO G., LYE G., BOWMAN S., CHURCH C., WOOD V., BARRELL B.G.,
 RA RAJANDREAM M.A., CONNOR R.E.;
 RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 CC -1- SIMILARITY: TO YEAST YOL022C.
 DR EMBL: Z53597; E315887; -.
 KW HYPOTHETICAL PROTEIN.
 SQ SEQUENCE 396 AA; 44276 MW; 9902417E CRC32;
 Query Match 86.8%; Score 46; DB 1; Length 396;
 Best Local Similarity 100.0%; Pred. No. 6.15e+01;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Db 3 QKVVQ 7
 QY 2 QKVVQ 6
 RESULT 24
 ID YAS4_HAEIN STANDARD; PRT; 460 AA.
 AC P44104;
 DT 01-NOV-1995 (REL. 32, CREATED)
 DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
 DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
 DE HYPOTHETICAL PROTEIN H11054.
 GN H11054.
 OS HAEMOPHILUS INFLUENZAE.
 OC PROKARYOTA; GRACILICUTES; SCOTOBACTERIA; FACULTATIVELY ANAEROBIC RODS;
 CC PASTEURILLACEAE.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-RD / KW20;
 RX MEDLINE: 95350630.
 RA FLEISCHMANN R.D., ADAMS M.D., WHITE O., CLAYTON R.A., KIRKNESS E.F.,
 RA KERLAVAGE A.R., BULT C.J., TOMB J.-F., DOUGHERTY B.A., MERRICK J.M.,

RA MCKENNEY K., SUTTON G., FITZHUGH W., FIELDS C.A., COCAYNE J.D.,
 RA SCOTT J.D., SHIRLEY R., LIU L.-I., GLODER A., KELLEY J.M.,
 RA WEIDMAN J.F., PHILLIPS C.A., SPRIGGS T., HEDBLUM E., COTTON M.D.,
 RA UTTERBACK T.R., HANNA M.C., NGUYEN D.T., SAUDEK D.M., BRANDON R.C.,
 RA FINE L.D., FRITZCHMAN J.L., FUHRMANN J.L., GEOGHAGEN N.S.M.,
 RA GNEHM C.L., McDONALD L.A., SMALL K.V., FRASER C.M., SMITH H.O.,
 RA VENTER J.C.;
 RL SCIENCE 269:496-512(1995).
 DR EMBL: U32786; G1574617; -.
 KW TIGR: H11054; -.
 DE HYPOTHETICAL PROTEIN.
 SQ SEQUENCE 460 AA; 53471 MW; 2ED66E12 CRC32;
 Query Match 86.8%; Score 46; DB 1; Length 460;
 Best Local Similarity 100.0%; Pred. No. 6.15e+01;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Db 288 KOKMV 292
 QY 1 KOKMV 5
 RESULT 25
 ID Y549_MENJA STANDARD; PRT; 141 AA.
 AC Q57969;
 DT 01-NOV-1997 (REL. 35, CREATED)
 DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
 DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
 DE HYPOTHETICAL PROTEIN M0549.
 GN M0549.
 OS METHANOCOCCUS JANNASCHII.
 OC ARCHAEABACTERIA; EURYARCHAEOTA; METHANOCOCCALES; METHANOCOCCACEAE.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-JAL-1 / DSM 2661 / AFCC 43067;
 RX MEDLINE: 96337999.
 RA BULT C.J., WHITE O., OLSEN G.J., ZHOU L., FLEISCHMANN R.D.,
 RA SUTTON G.G., BLAKE J.A., FITZGERALD L.M., CLAYTON R.A., COCAYNE J.D.,
 RA KERLAVAGE A.R., DOUGHERTY B.A., TOMB J.-F., ADAMS M.D., REICH C.I.,
 RA OVERBEER R., KIRKNESS E.F., WEINSTOCK K.G., MERRICK J.M., GLODER A.,
 RA SCOTT J.L., GEOGHAGEN N.S.M., WEIDMAN J.F., FUHRMANN J.L., NGUYEN D.,
 RA UTTERBACK T.R., KELLEY J.M., PETERSON J.D., SADOW P.W., HANNA M.C.,
 RA COTTON M.D., ROBERTS K.M., HURST M.A., RAINE B.P., BORODOVSKY M.,
 RA KLEINK H.-P., FRASER C.M., SMITH H.O., WOESE C.R., VENTER J.C.;
 RL SCIENCE 273:1058-1073(1996).
 CC -1- SIMILARITY: TO M.JANNASCHII M0080 AND M0767 AND TO E.COLI YHFG.
 DR EMBL: U67504; G1591254; -.
 KW TIGR: M0549; -.
 DE HYPOTHETICAL PROTEIN.
 SQ SEQUENCE 141 AA; 16132 MW; EB3D8804 CRC32;
 Query Match 84.9%; Score 45; DB 1; Length 141;
 Best Local Similarity 50.0%; Pred. No. 8.82e+01;
 Matches 3; Conservative 3; Mismatches 0; Indels 0; Gaps 0;
 Db 45 KKRMIH 50
 QY 1 KOKVVQ 6
 RESULT 26
 ID YCX2_YEAST STANDARD; PRT; 128 AA.
 AC P25649;
 DT 01-MAY-1992 (REL. 22, CREATED)
 DT 01-MAY-1992 (REL. 22, LAST SEQUENCE UPDATE)
 DT 01-MAY-1992 (REL. 22, LAST ANNOTATION UPDATE)
 DE HYPOTHETICAL 15.1 KD PROTEIN IN SRB8-TUPI INTERGENIC REGION.
 GN YCR82W.
 OS SACCCHAROMYCES CEREVISIAE (BAKER'S YEAST).
 OC EUKARYOTA; FUNGI; ASCOMYCOTINA; HEMIASCOMYCETES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA FELDMANN H., MANNHAUPT G., VETTER I.,

RL SUBMITTED (MAR-1992) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: X59720: E264569; -
DR PIR: S19497; S19497.
RW HYPOTHETICAL PROTEIN.
SQ SEQUENCE 128 AA; 15117 MW; 283D25D0 CRC32;
Query Match
Best Local Similarity 80.0%; Score 44; DB 1; Length 128;
Matches 4; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
Db 88 KOKWI 92
|||:
Oy 1 KOKWV 5
RESULT 27
ID PQOC_KLEPN STANDARD; PRT; 251 AA.
AC P27505;
DT 01-AUG-1992 (REL. 23, CREATED)
DT 01-AUG-1992 (REL. 23, LAST SEQUENCE UPDATE)
DT 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
DE COENZYME PQQ SYNTHESIS PROTEIN C.
GN PQOC.
OS KLEBSIELLA PNEUMONIAE.
OC PROKARYOTA: GRACILICUTES; SCOTOBACTERIA; FACULTATIVELY ANAEROBIC RODS;
CC ENTEROBACTERIACEAE.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-NCTC 418;
RX MEDLINE: 92212293.
RA MELDENBERG J.J.M., SELINK E., RIEGMAN N.H., POSTMA P.W.;
RL MOL. GENET. 232:284-294(1992)
CC -1- FUNCTION: REQUIRED FOR COENZYME PYROLO-QUINOLINE-QUINONE (PQQ)
CC BIOSYNTHESIS.
CC -1- SIMILARITY: TO OTHER BACTERIAL PQOC.
DR EMBL: X58778; G43907; -
DR PIR: S20455; S20455.
KW PQQ.
SQ SEQUENCE 251 AA; 28986 MW; E5E75053 CRC32;
Query Match
Best Local Similarity 83.0%; Score 44; DB 1; Length 251;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
Db 74 RKKWQ 79
:|||:
Oy 1 KOKWQ 6
RESULT 28
ID IL8_HUMAN STANDARD; PRT; 99 AA.
AC P10145;
DT 01-MAR-1989 (REL. 10, CREATED)
DT 01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8) (MONOCYTE-DERIVED NEUTROPHIL
DE CHEMOTACTIC FACTOR) (MNCF) (T-CELL CHEMOTACTIC FACTOR) (NEUTROPHIL-
DE ACTIVATING PROTEIN 1) (NAP-1) (LYMPHOCYTE-DERIVED NEUTROPHIL-
DE ACTIVATING FACTOR) (LYNAP) (PROTEIN 3-10C) (NEUTROPHIL-ACTIVATING
DE FACTOR) (NAF) (GRANULOCYTE CHEMOTACTIC PROTEIN 1) (GCP-1) (EMOCTAKIN).
GN IL8.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA: METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
CC EUHERIA: PRIMATES.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 88258376.
RA MATSUSHIMA K., MORISHITA K., YOSHIMURA T., LAUV S., KOBAYASHI Y.,
RA LEW W., APPELLA E., KUNG H., LEONARD E.J., OPPENHEIM J.J.;
RL J. EXP. MED. 167:1883-1893(1988).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 87224164.

RA SCHMID J., WEISSMANN C.;
RL J. IMMUNOL. 139:250-256(1987).
RN [3]
RP SEQUENCE FROM N.A.
RX MEDLINE: 89313739.
RA KOWALSKI J., DENHARDT D.T.;
RL MOL. CELL. BIOL. 9:1946-1957(1989).
RN [4]
RP SEQUENCE FROM N.A.
RX MEDLINE: 89309826.
RA MUKAIDA N., SHIROO M., MATSUSHIMA K.;
RL J. IMMUNOL. 143:1366-1371(1989).
RN [5]
RP SEQUENCE FROM N.A.
RA ISHIKAWA J.;
RL SUBMITTED (JAN-1993) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [6]
RP SEQUENCE OF 23-46.
RX MEDLINE: 89246368.
RA GOLDS E.E., MASON P., NYRKOS P.;
RL BIOCHEM. J. 259:585-588(1989).
RN [7]
RP SEQUENCE OF 23-54.
RX MEDLINE: 89279141.
RA SUZUKI K., MIYASAKA H., OTA H., YAMAKAWA Y., TAGAWA M., KURAMOTO A.,
RA MIJUNO S.;
RL J. EXP. MED. 169:1895-1901(1989).
RN [8]
RP SEQUENCE OF 28-99.
RX MEDLINE: 88162914.
RA GREGORY H., YOUNG J., SCHROEDER J.M., MROWCETZ U., CHRISTOPHERS E.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 151:883-890(1988).
RN [9]
RP SEQUENCE OF 28-59.
RX MEDLINE: 88106502.
RA WALZ A., PEYER P., ASCHAUER H., BAGGIOLINI M.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 149:755-761(1987).
RN [10]
RP SEQUENCE OF 28-69.
RX MEDLINE: 88097462.
RA YOSHIMURA T., MATSUSHIMA K., TANAKA S., ROBINSON E.A., APPELLA E.,
RA OPPENHEIM J.J., LEONARD E.J.;
RL PROC. NATL. ACAD. SCI. U.S.A. 84:9233-9237(1987).
RN [11]
RP STRUCTURE BY NMR.
RX MEDLINE: 90234679.
RA CLORE G.M., APPELLA E., YAMADA M., MATSUSHIMA K., GRONENBORN A.M.;
RL BIOCHEMISTRY 29:1689-1696(1990).
RN [12]
RP X-RAY CRYSTALLOGRAPHY (1.6 ANGSTROMS).
RX MEDLINE: 90216714.
RA BALDWIN E.T., FRANKLIN K.A., APPELLA E., YAMADA M., MATSUSHIMA K.,
RA WLODAWER A., WEBER I.T.;
RL J. BIOL. CHEM. 265:6851-6853(1990).
RN [13]
RP X-RAY CRYSTALLOGRAPHY, AND STRUCTURE BY NMR.
RX MEDLINE: 91171286.
RA CLORE G.M., GRONENBORN A.M.;
RL J. MOL. BIOL. 217:611-620(1991).
RN [14]
RP X-RAY CRYSTALLOGRAPHY (1.6 ANGSTROMS), AND STRUCTURE BY NMR.
RX MEDLINE: 91110556.
RA BALDWIN E.T., WEBER I.T., ST CHARLES R., XUAN J.C., APPELLA E.,
RA YAMADA M., MATSUSHIMA K., EDWARDS B.F., CLORE G.M., GRONENBORN A.M.;
RL PROC. NATL. ACAD. SCI. U.S.A. 88:502-506(1991).
RN [15]
RP N-TERMINAL FORMS.
RX MEDLINE: 91006326.
RA VAN DAMME J., RAMPART M., CONING R., DECOCK B., VAN OSSELAER N.,
RA WILLEMS J., BILLIAU A.;
RL EUR. J. IMMUNOL. 20:2113-2118(1990).
RN [16]
RP N-TERMINAL FORMS.

RX MEDLINE: 89231715.
RA VAN DAMME J., VAN BEUMEN J., CONINGS R., DECOCK B., BILLIAU A.;
RL EUR. J. BIOCHEM. 181:337-344(1989).
RN (17)
RP SYNTHESIS OF 28-99.
RX MEDLINE: 91175767.
RA CLARK-LEWIS I., MOSE B., WALZ A., BAGGIOLINI M., SCOTT G.J.,
RL BIOCHEMISTRY 30:3128-3135(1991).
RN (18)
RP REVIEW.
RX MEDLINE: 92347562.
RA BAGGIOLINI M., CLARK-LEWIS I.;
RL FEBS LETT. 307:97-101(1992).
CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
RESPONSE TO AN INFLAMMATORY STIMULUS.
CC -1- SUBUNIT: HOMODIMER.
CC -1- SIMILARITY: BELONGS TO THE INTERKINE ALPHA FAMILY (SMALL CYTOKINE
C-X-C) (CHEMOKINE CXC).
CC EMBL: Y00787; G34519; -;
DR EMBL: M17017; G179580; -;
DR EMBL: M26383; G188628; -;
DR EMBL: M28130; G186368; -;
DR EMBL: D14283; G218916; -;
DR PIR: A37034; A37034.
DR PIR: S03975; S03975.
DR PIR: S04216; S04216.
DR PDB: 1IL8; 15-JAN-91.
DR PDB: 2IL8; 15-JAN-91.
DR PDB: 3IL8; 15-OCT-92.
DR PDB: 1ICW; 12-MAR-97.
DR PDB: 1IKL; 15-OCT-95.
DR PDB: 1IKM; 15-OCT-95.
DR MIM: 146930; -;
DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL; 3D-STRUCTURE.
FT SIGNAL 1 22
FT CHAIN 1 22
FT PROPEP 23 30
FT DISULFID 34 61
FT DISULFID 36 77
FT CONFLICT 53 53
FT HELIX 46 48
FT STRAND 49 55
FT STRAND 58 60
FT TURN 59 60
FT STRAND 61 61
FT STRAND 65 70
FT TURN 71 72
FT STRAND 75 78
FT TURN 80 81
FT HELIX 83 97
FT TURN 98 98
SQ SEQUENCE 99 AA; 11098 MW; 89D1891F CRC32;
Query Match 81.1%; Score 43; DB 1; Length 99;
Best Local Similarity 66.7%; Pred. No. 1.78e+02;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

DE SERUM AMYLOID A-3 PROTEIN PRECURSOR.
GN SAA3.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN (1)
RP SEQUENCE FROM N.A.
RX MEDLINE: 86120372.
RA STEARMAN R.S., LOWELL C.A., PELTZMAN C.G., MORROW J.F.;
RL NUCLEIC ACIDS RES. 14:797-809(1986).
RN (2)
RP SEQUENCE FROM N.A.
RX MEDLINE: 86230747.
RA LOWELL C.A., POTTER D.A., STEARMAN R.S., MORROW J.F.;
RL J. BIOL. CHEM. 261:8442-8452(1986).
RN (3)
RP SEQUENCE OF 27-64 FROM N.A.
RC STRAIN-BALB/C; TISSUE-LIVER.
RX MEDLINE: 82229376.
RA STEARMAN R.S., LOWELL C.A., PEARSON W.R., MORROW J.F.;
RL ANN. N.Y. ACAD. SCI. 389:106-115(1982).
RN (4)
RP SEQUENCE OF 32-122 FROM N.A.
RX MEDLINE: 87309776.
RA YAMAMOTO K.I., GOTO N., KOSAKA J., SHIROO M., YEUL Y.D., MIGITA S.;
RL J. IMMUNOL. 139:1683-1688(1987).
CC -1- FUNCTION: MAJOR ACUTE PHASE REACTANT. APOLIPOPROTEIN OF THE HDL
COMPLEX.
CC -1- TISSUE SPECIFICITY: FOUND IN VARIOUS TISSUES.
CC -1- INDUCTION: UPON CYTOKINE STIMULATION.
CC -1- DISEASE: REACTIVE, SECONDARY AMYLOIDOSIS IS CHARACTERIZED BY THE
EXTRACELLULAR ACCUMULATION IN VARIOUS TISSUES OF THE SAA PROTEIN.
CC THESE DEPOSITS ARE HIGHLY INSOLUBLE AND RESISTANT TO PROTEOLYSIS;
CC THEY DISRUPT TISSUE STRUCTURE AND COMPROMISE FUNCTION.
CC -1- SIMILARITY: BELONGS TO THE SAA FAMILY.
DR EMBL: X03479; G817998; -;
DR EMBL: X03505; G762988; -;
DR EMBL: X03506; G762988; JOINED.
DR EMBL: X03507; G762988; JOINED.
DR EMBL: M25467; G191930; -;
DR EMBL: M17792; G200919; -;
DR PIR: A23521; A23521.
DR PIR: C23843; C23843.
DR MGD: MGI:98223; SAA3.
DR PROSITE: PS00992; SAA; 1.
KW ACUTE PHASE; PLASMA; HDL; AMYLOID; SIGNAL; MULTIGENE FAMILY.
FT SIGNAL 1 19
FT CHAIN 1 19
FT CONFLICT 57 57
FT CONFLICT 57 57
SQ SEQUENCE 122 AA; 13773 MW; F6574A21 CRC32;
Query Match 81.1%; Score 43; DB 1; Length 122;
Best Local Similarity 80.0%; Pred. No. 1.78e+02;
Matches 4; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

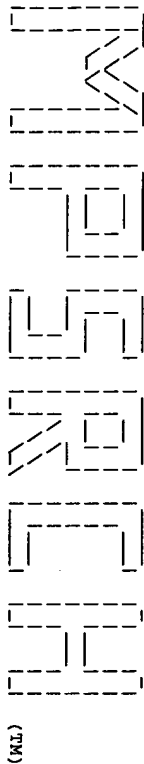
DB 81 KENWVQ 86
QY 1 KOKWVQ 6
RESULT 29
ID SAA3_MOUSE STANDARD; PRT; 122 AA.
AC P04918; Q62201;
DT 13-AUG-1987 (REL. 05, CREATED)
DT 13-AUG-1987 (REL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)

DB 19 QRWVQ 23
QY 2 QKWVQ 6
RESULT 30
ID PFLA_ECOLI STANDARD; PRT; 245 AA.
AC P09374;
DT 01-MAR-1989 (REL. 10, CREATED)
DT 01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE)
DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE PYROVATE FORMATE-LYASE 1 ACTIVATING ENZYME (EC 1.97.1.4).
GN PFLA OR ACP.
OS ESCHERICHIA COLI.
OC PROKARYOTA; GRACILICUTES; SCOTOBACTERIA; FACULTATIVELY ANAEROBIC RODS;
OC ENTEROBACTERIACEAE.
RN (1)

```

RP SEQUENCE FROM N.A.
RC STRAIN-K12:
RX MEDLINE: 89030680.
RA ROEDEL W., PLAGA W., FRANK R., KAPPE J.;
RL EUR. J. BIOCHEM. 177:153-158(1988).
RN (2)
RP SEQUENCE FROM N.A.
RC STRAIN-K12 / MG1655:
RA BLATTNER F.R., PLUNKETT G., II, MAYHEW G.F., PERNA N.T., GLASNER F.D.;
RL SUBMITTED (JAN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN (3)
RP SEQUENCE FROM N.A.
RC STRAIN-K12:
RX MEDLINE: 97061202.
RA OSHIMA T., AIBA T., BABA T., FUJITA K., HAYASHI K., HONJO A.,
RA IKEMOTO K., INABA T., ITOH T., KAJIARA M., KANAI K.,
RA KASHIMOTO K., KIMURA S., KITAGAWA M., MAKINO K., MASUDA S.,
RA MITI T., MIZOBUCHI K., MORI H., MOTOMURA K., NAKAMURA Y.,
RA NASHIMOTO H., NISHIO Y., SAITO N., SAMPEI G., SEKI Y., TAGAMI H.,
RA TAJEMOTO K., WADA C., YAMAMOTO Y., YANO M., HORICHI T.;
RL DNA RES. 3:137-155(1996).
CC -1- FUNCTION: ACTIVATION OF PYRUVATE FORMATE-LYASE 1 UNDER ANAEROBIC
CC CONDITIONS BY GENERATION OF AN ORGANIC FREE RADICAL. USING
CC S-ADENOSYLMETHIONINE AND REDUCED FLAVODOXIN AS COSUBSTRATES TO
CC PRODUCE 5'-DEOXY-ADENOSINE.
CC -1- CATALYTIC ACTIVITY: S-ADENOSYL-L-METHIONINE + DIHYDROFLAVODOXIN +
CC [PYRUVATE FORMATE-LYASE] - GLYCINE = 5'-DEOXYADENOSINE + METHIONINE
CC + FLAVODOXIN + [PYRUVATE FORMATE-LYASE]-GLYCINE RADICAL.
CC -1- COFACTOR: IRON-DEPENDENT.
CC -1- SUBCELLULAR LOCATION: CYTOSOL;CYT.
CC -1- SIMILARITY: BELONGS TO THE ORGANIC RADICAL ACTIVATING ENZYMES
CC FAMILY.
CC EMBL: X08035; G42371; -.
CC DR EMBL: AE000192; G1787130; -.
CC DR EMBL: D90728; G1651426; -.
CC DR PIR: S01789; S01789.
CC DR ECGENE: EG10028; PFLA
CC PROSITE: PS01087; RADICAL_ACTIVATING; 1.
CC KW OXIDOREDUCTASE; IRON; GLUCOSE METABOLISM.
CC FT INIT_MET 0
CC FT METAL 29 29 IRON (POTENTIAL).
CC FT METAL 33 33 IRON (POTENTIAL).
CC FT METAL 36 36 IRON (POTENTIAL).
CC SEQUENCE 245 AA; 28073 MW; 3D9FE679 CRC32;
SQ

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(TM)

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MPsrch_pp protein - protein database search, using Smith-Waterman algorithm

Run on: Thu Apr 1 07:31:34 1999; Maspar time 4.54 Seconds

Tabular output not generated. 72.887 Million cell updates/sec

Title: >US-08-927-939-9

Description: (1-6) from US08927939.pep

Sequence: 1 KOKWVQ 6

Scoring table: PAM 150

Gap 15

Searched: 180763 seqs, 55169189 residues

Post-processing: Minimum Match 0%

Listing first 100 summaries

Database:

sptrembl8
1:sp_archaea 2:sp_bacteria 3:sp_fungi 4:sp_human
5:sp_invertebrate 6:sp_mammal 7:sp_mhc 8:sp_organellae
9:sp_phase 10:sp_plant 11:sp_rodent 12:sp_unclassified
13:sp_vertebrate 14:sp_virus

Statistics: Mean 22.471; Variance 34.448; scale 0.652

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description	Pred. No.
1	50	94.3	192	10	023536	RESISTANCE GENE HOMO	2.75e+01
2	50	94.3	1361	10	004264	DOWN MILDEN RESISTANC	2.75e+01
3	49	92.5	324	4	015630	TRANSCRIPTION FACTOR.	4.06e+01
4	49	92.5	359	4	060759	CAURETHIN BINDING PROT	4.06e+01
5	49	92.5	395	11	035188	NEUROFACIN.	4.06e+01
6	49	92.5	395	11	035933	FRACALAKINE.	4.06e+01
7	48	90.6	454	4	060383	GDF-9	5.96e+01
8	47	88.7	145	2	P74671	HYPOTHETICAL 16.6 KD P	8.70e+01
9	47	88.7	579	11	Q60736	ZONA PELLUCIDA 3 RECP	8.70e+01
10	46	86.8	97	13	057411	LYMPHOTACTIN PRECURSOR	1.26e+02
11	46	86.8	172	2	051136	HIT054 HOMOLOG (FRAGME	1.26e+02
12	46	86.8	187	2	083516	HYPOTHETICAL 21.4 KD P	1.26e+02
13	46	86.8	289	2	067646	LEUCYL-TRNA SYNTHETASE	1.26e+02
14	46	86.8	334	1	057833	334AA LONG HYPOTHETICA	1.26e+02
15	46	86.8	403	5	076961	CALRETICULIN PRECURSOR	1.26e+02
16	46	86.8	421	14	041898	POLYPROTEIN (FRAGMENT)	1.26e+02
17	46	86.8	912	5	045303	C45G3.3 PROTEIN.	1.26e+02
18	46	86.8	2273	4	P78363	ATP-BINDING CASSETTE T	1.26e+02
19	46	86.8	2273	4	015112	ATP-BINDING CASSETTE T	1.26e+02
20	46	86.8	2273	4	060438	RIM ABC TRANSPORTER.	1.26e+02

21	46	86.8	2273	4	060915	ABCR.	1.26e+02
22	45	84.9	119	4	000175	MPF-2.	1.83e+02
23	45	84.9	178	2	031562	YFIF PROTEIN.	1.83e+02
24	45	84.9	383	5	017645	C34E6.4.	1.83e+02
25	45	84.9	475	4	060646	HYPOTHETICAL 53.8 KD P	1.83e+02
26	45	84.9	483	5	023206	SIMILARITY TO NUCLEOLU	1.83e+02
27	45	84.9	593	5	062146	F09B12.3.	1.83e+02
28	45	84.9	1038	10	023532	RESISTANCE GENE.	1.83e+02
29	45	84.9	2276	4	075050	KIAA0462 PROTEIN (FRAG	1.83e+02
30	44	83.0	141	8	003005	REF280 GENE HOMOLOG (	2.62e+02
31	44	83.0	163	10	040442	TUMOR-RELATED PROTEIN	2.62e+02
32	44	83.0	167	10	049197	HAIRY ROOT 2.	2.62e+02
33	44	83.0	171	4	003839	FLIAGRIN (PROFILAGRI	2.62e+02
34	44	83.0	200	4	003837	FLIAGRIN (PROFILAGRI	2.62e+02
35	44	83.0	341	10	081450	T27D20.4 PROTEIN.	2.62e+02
36	44	83.0	383	10	023578	HYPOTHETICAL 42.1 KD P	2.62e+02
37	44	83.0	419	13	098984	CALRETICULIN.	2.62e+02
38	44	83.0	465	4	003838	FLIAGRIN (PROFILAGRI	2.62e+02
39	44	83.0	478	5	061122	SEVERIN KINASE.	2.62e+02
40	44	83.0	500	3	006682	SIMILARITY NEAR C-TERM	2.62e+02
41	44	83.0	521	2	055755	HYPOTHETICAL 60.8 KD P	2.62e+02
42	44	83.0	591	4	001720	FLIAGRIN PRECURSOR (P	2.62e+02
43	44	83.0	770	5	060999	CULA.	2.62e+02
44	44	83.0	990	4	015306	PROFILAGRIN (FRAGMENT	2.62e+02
45	44	83.0	1218	4	005331	FLIAGRIN (PROFILAGRI	2.62e+02
46	44	83.0	2685	3	014151	HYPOTHETICAL 310.3 KD	2.62e+02
47	43	81.1	183	2	040501	ENVELOPE GLYCOPROTEIN	3.74e+02
48	43	81.1	206	10	023539	YLP.	3.74e+02
49	43	81.1	215	5	018293	DNA CHROMOSOME 4, ESSA	3.74e+02
50	43	81.1	237	10	049637	HYPOTHETICAL 26.2 KD P	3.74e+02
51	43	81.1	317	2	066883	HYDROLYTIC SYNTHASE C	3.74e+02
52	43	81.1	369	2	086548	THYMIDYLATE SYNTHASE	3.74e+02
53	43	81.1	369	1	031172	MHC CLASS I ANTIGEN.	3.74e+02
54	43	81.1	389	7	058409	389AA LONG HYPOTHETICA	3.74e+02
55	43	81.1	395	2	054095	POTATIVE OXIDASE.	3.74e+02
56	43	81.1	415	5	018565	COSMID C34D4.	3.74e+02
57	43	81.1	471	10	049326	SMAP-70.	3.74e+02
58	43	81.1	477	10	023530	SIMILAR TO JASMONATE I	3.74e+02
59	43	81.1	489	2	021652	SIMILARITY TO TMV RESI	3.74e+02
60	43	81.1	496	5	093339	DNA PRIMASE (FRAGMENT)	3.74e+02
61	43	81.1	509	5	018452	HYPOTHETICAL PROTEIN C	3.74e+02
62	43	81.1	585	11	088443	COSMID C34D4.	3.74e+02
63	43	81.1	585	11	088443	SNAP-70.	3.74e+02
64	43	81.1	598	10	004610	A1G002N01.7.	3.74e+02
65	43	81.1	603	4	075135	KIAA0640 PROTEIN (FRAG	3.74e+02
66	43	81.1	766	10	023538	RESISTANCE GENE HOMO	3.74e+02
67	43	81.1	835	5	022469	T13H5.4.	3.74e+02
68	43	81.1	836	9	048483	COMPLETE NUCLEOTIDE SE	3.74e+02
69	43	81.1	1235	2	086167	SOGL PROTEIN.	3.74e+02
70	43	81.1	1256	10	023528	RESISTANCE GENE.	3.74e+02
71	43	81.1	1286	4	014578	SIMILARITY TO P49205 (	3.74e+02
72	43	81.1	1422	10	023533	RESISTANCE GENE HOMO	3.74e+02
73	43	81.1	1641	11	088528	CITRON-K KINASE (FRAGM	3.74e+02
74	43	81.1	1705	10	023363	HYPOTHETICAL 198.1 KD	3.74e+02
75	43	81.1	1781	5	026793	RNA POLYMERASE I LARGE	3.74e+02
76	43	81.1	2055	11	088938	RHO/RAC-INTERACTING CI	3.74e+02
77	43	81.1	2467	10	023535	RESISTANCE GENE HOMO	3.74e+02
78	43	81.1	3394	5	009569	HYPOHETICAL 391.6 KD	3.74e+02
79	43	81.1	3396	5	062263	F4B3.1.	3.74e+02
80	42	79.2	61	11	061589	GUANINE NUCLEOTIDE-BIN	5.31e+02
81	42	79.2	163	11	061020	GUANINE NUCLEOTIDE-BIN	5.31e+02
82	42	79.2	191	5	061287	CSCD42.	5.31e+02
83	42	79.2	264	2	026778	GML.	5.31e+02
84	42	79.2	266	5	036888	RIBOSOMAL PROTEIN L2.	5.31e+02
85	42	79.2	328	2	051235	PHOSPHATE ABC TRANSPOR	5.31e+02
86	42	79.2	375	5	018678	G PROTEIN ALPHA SUBUNT	5.31e+02
87	42	79.2	396	1	059578	366AA LONG HYPOTHETICA	5.31e+02
88	42	79.2	419	4	014455	ALPHA SUBUNIT OF GSGTP	5.31e+02
89	42	79.2	541	5	017941	C12D8.10A.	5.31e+02
90	42	79.2	546	5	017942	C12D8.10B.	5.31e+02
91	42	79.2	644	5	018239	SIMILAR TO THE DISHEVE	5.31e+02
92	42	79.2	653	10	064561	SALT INDUCIBLE PROTEIN	5.31e+02
93	42	79.2	722	10	023337	HYPOTHETICAL 82.1 KD P	5.31e+02

94 42 79.2 809.2 059086 OUNATE DEHYDROGENASE 5.31e+02
95 42 79.2 846.11 063803 XIAS. 5.31e+02
96 42 79.2 1053 2 084834 RIBONUCLEOSIDE REDUCTA 5.31e+02
97 42 79.2 1253 5 019523 F17C8.1. 5.31e+02
98 42 79.2 1638 5 061529 GUANINE NUCLEOTIDE EXC 5.31e+02
99 42 79.2 2182 5 026034 VARIANT-SPECIFIC SURFA 5.31e+02
100 42 79.2 2488 5 061528 GUANINE NUCLEOTIDE EXC 5.31e+02

ALIGNMENTS

RESULT 1
ID 023536 PRELIMINARY: PRT: 192 AA.
AC 023536:
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DE 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
OS ARABIDOPSIS THALIANA (MOUSE-EAR CRESS).
OC EUKARYOTA: VIRIDIPHYTES: CHAROPHYTA/EMBRYOPHYTA GROUP, EMBRYOPHYTA:
OC TRACHEOPHYTA: EUPHYLOPHYTES: SPERMATOPHYTA: MAGNOLIOPHYTA:
OC EUDICOTYLEONS: ROSIDAE: CAPPARIDAE; BRASSICACEAE; ARABIDOPSIS.
[1]
RP SEQUENCE FROM N.A.
RA BEVAN M., STIEKEMA W., MURPHY G., WAMBUTT R., POHL T., TERRYN N.,
RA KREIS M., KAVANACH T., ENTIAN K.D., RIEGER M., JAMES R.,
RA PUTDOMEHNECH P., HATZIOPOULOS P., OBERMAIER B., DUESTERHOFF A.,
RA JONES J., PALME K., ANSGORGE W., DELSENY M., BANCROFT I., MEMES H.W.,
RA SCHUELLER C., CHALMARTZIS N.;
RL SUBMITTED (JUL-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
[2]
RN SEQUENCE FROM N.A.
RP EU ARABIDOPSIS SEQUENCING PROJECT, ESSA;
RA SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RL EMBL: 297342; E327026; -;
SQ SEQUENCE 192 AA: 21535 MW: 7BD51863 CRC32;

Query Match 94.3%; Score 50; DB 10; Length 192;
Best Local Similarity 83.3%; Pred. No. 2.75e+01;

Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 139 KORWVO 144
|||
QY 1 KORWVO 6

RESULT 2
ID 004264 PRELIMINARY: PRT: 1361 AA.

AC 004264:
DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DE 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE DOWNY MILDEW RESISTANCE PROTEIN RPP5.
GN RPP5.
OS ARABIDOPSIS THALIANA (MOUSE-EAR CRESS).
OC EUKARYOTA: VIRIDIPHYTES: CHAROPHYTA/EMBRYOPHYTA GROUP, EMBRYOPHYTA:
OC TRACHEOPHYTA: EUPHYLOPHYTES: SPERMATOPHYTA: MAGNOLIOPHYTA:
OC EUDICOTYLEONS: ROSIDAE: CAPPARIDAE; BRASSICACEAE; ARABIDOPSIS.
[1]
RN SEQUENCE FROM N.A.
RP STRAIN-LANDSBERG ERECTA;
RA PARKER J.E., COLEMAN M.J., SZABO V., FROST L.N., SCHMIDT R.,
RA DER BIEZEN E.A., MOORES T., DEAN C., DANIELS M.J., JONES J.D.G.,
RL PLANT CELL 0:0-0(0).
DR EMBL: U97106; G2109275; -;
DR PFAM: PF00560; LRR: 8;
DR PFAM: PF00931; NB-ARC: 1;
SQ SEQUENCE 1361 AA: 154366 MW: 022C612B CRC32;

Query Match 94.3%; Score 50; DB 10; Length 1361;
Best Local Similarity 83.3%; Pred. No. 2.75e+01;

Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 139 KORWVO 144
|||
QY 1 KORWVO 6

RESULT 3
ID 015630 PRELIMINARY: PRT: 324 AA.

AC 015630:
DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
DE 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE TRANSCRIPTION FACTOR.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA: METAZOA: CHORDATA: VERTEBRATA: MAMMALIA: EUTHERIA: PRIMATES;
OC CATARRHINI: HOMINIDAE; HOMO.
[1]
RP SEQUENCE FROM N.A.
RA TISSUE-BLOOD;
RX MEDLINE: 9406011.
RA DIXON B., SAHELTY B., LIU L., POHAJDAK B.;
RT "Cloning a cDNA from human NK/T cells which codes for an unusual
RT leucine zipper containing protein."
RL BIOCHIM. BIOPHYS. ACTA 1216:321-324(1993).
DR EMBL: L06633; G431328; -;
DR PFAM: PF00595; PDZ: 1;
SQ SEQUENCE 324 AA: 36318 MW: 5F2344EC CRC32;

Query Match 92.5%; Score 49; DB 4; Length 324;
Best Local Similarity 83.3%; Pred. No. 4.06e+01;

Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 151 KORWVE 156
|||
QY 1 KORWVO 6

RESULT 4
ID 060759 PRELIMINARY: PRT: 359 AA.

AC 060759:
DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
DE 01-NOV-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
DE CYTOSOLIC BINDING PROTEIN HE.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA: METAZOA: CHORDATA: VERTEBRATA: MAMMALIA: EUTHERIA: PRIMATES;
OC CATARRHINI: HOMINIDAE; HOMO.
[1]
RN SEQUENCE FROM N.A.
RP HEUFLE C.;
RA SUBMITTED (MAY-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AF068836; G3192909; -;
SQ SEQUENCE 359 AA: 40009 MW: 19DB9FC9 CRC32;

Query Match 92.5%; Score 49; DB 4; Length 359;
Best Local Similarity 83.3%; Pred. No. 4.06e+01;

Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 186 KORWVE 191
|||
QY 1 KORWVO 6

RESULT 5
ID 035188 PRELIMINARY: PRT: 395 AA.

AC 035188:
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DE 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE NEUROTACTIN.
GN SCYD1.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA: METAZOA: CHORDATA: VERTEBRATA: MAMMALIA: EUTHERIA: RODENTIA;
OC SCIROGNATHI: MORIDAE; MORINAE; MOS.

RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 97320499.
 RA PAN Y., CLARE L., HONG Z., DOLICH S., DEEDS J., GONZALO J., VASH J.,
 RA GOSSELIN M., MA J., DUSSAULT B., WOOLF B., ALPERIN A., CULPEPPER J.,
 RA GUTIERREZ-RAMOS J.C., GEARING D.;
 RT "Neurotactin, a membrane-anchored chemokine upregulated in brain
 inflammation";
 RL NATURE 387:611-617(1997).
 DR EMBL; AF010586; G2317698; -.
 DR MGD; MGI:1097153; SCYD1.
 DR PFAM; PF00048; 118; 1.
 SQ SEQUENCE 395 AA; 42098 MW; E3CD0612 CRC32;

 Query Match 92.5%; Score 49; DB 11; Length 395;
 Best Local Similarity 83.3%; Pred. No. 4.06e+01;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

 Db 78 KKKWQ 83
 1 KKKWQ 6

 RESULT 6
 ID 035933 PRELIMINARY; PRT: 395 AA.
 AC 035933;
 DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
 DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE FRACALAKINE.
 OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAQOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
 OC SCURONGNATHI; MORIDAE; MORINAE; MUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-BALB/C; TISSUE-BRAIN;
 RA ROSSI D., HARDIAN G., COPELAND N., GILBERT D.J., JENKINS N.,
 RA ZLOTNIK A., BAZAN J.F.;
 RL SUBMITTED (MAR-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL; U92565; G2459677; -.
 DR PFAM; PF00048; 118; 1.
 SQ SEQUENCE 395 AA; 42040 MW; 3997A113 CRC32;

 Query Match 92.5%; Score 49; DB 11; Length 395;
 Best Local Similarity 83.3%; Pred. No. 4.06e+01;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

 Db 78 KKKWQ 83
 1 KKKWQ 6

 RESULT 7
 ID 060383 PRELIMINARY; PRT: 454 AA.
 AC 060383;
 DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
 DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
 DT 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
 DE GDF-9.
 GN GDF-9.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAQOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
 OC CATHARTHI; HOMINIDAE; HOMO.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA KJMEELY M., BONDOR M., CHENG J., CONNOLLY K.S., GUNNING K.M.,
 RA DAVIS C.A., KADNER K., MIGUEL T., PITLUCK S., POLLARD M., ROJESKI H.,
 RA SUBRAMANIAN S., MARTIN C.H.;
 RL SUBMITTED (MAR-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [2]
 RP SEQUENCE FROM N.A.
 RA RICKE D.O.;
 RL SUBMITTED (APR-1998) TO EMBL/GENBANK/DBJ DATA BANKS.

CC -1- SIMILARITY: TO OTHER GROWTH FACTORS OF THE TGF-BETA FAMILY.
 DR EMBL; AC004500; G2996640; -.
 DR PROSITE; PS00250; TGF_BETA; 1.
 KW GLYCOPROTEIN.
 SQ SEQUENCE 454 AA; 51443 MW; FA10BD9F CRC32;

 Query Match 90.6%; Score 48; DB 4; Length 454;
 Best Local Similarity 66.7%; Pred. No. 5.96e+01;
 Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

 Db 208 KKKWQ 213
 1 KKKWQ 6

 RESULT 8
 ID P74671 PRELIMINARY; PRT: 145 AA.
 AC P74671;
 DT 01-FEB-1997 (TREMBLREL. 02, CREATED)
 DT 01-FEB-1997 (TREMBLREL. 02, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE HYPOTHETICAL 16.6 KD PROTEIN.
 OS SYNECHOCYSTIS SP. (STRAIN PCC 6803).
 OC BACTERIA; CYANOBACTERIA; CHROCOCCALES; SYNECHOCYSTIS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-PCC6803;
 RA TABATA S.;
 RL SUBMITTED (JUN-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [2]
 RP SEQUENCE FROM N.A.
 RC STRAIN-PCC6803;
 RX MEDLINE; 97061201.
 RA KANEKO T., SATO S., KOTANI H., TANAKA A., ASAMIZU E., NAKAMURA Y.,
 RA MIYAJIMA N., HIROSAMA M., SUGIURA M., SASAKOTO S., KITUDA T.,
 RA HOSOUCHI T., MATSUNO A., MURAKI A., NAKAZAKI N., NARUO K., OKUMURA S.,
 RA SHIMO S., TAKEUCHI C., WADA T., WATANABE A., YAMADA M., YASUDA M.,
 RA TABATA S.;
 RT "Sequence analysis of the genome of the unicellular cyanobacterium
 RT Synechocystis sp. strain PCC6803. II. Sequence determination of the
 RT entire genome and assignment of potential protein-coding regions.";
 RL DNA RES. 3:109-136(1996).
 DR EMBL; D90917; D1019522; -.
 KW HYPOTHETICAL PROTEIN.
 SQ SEQUENCE 145 AA; 16561 MW; 3370B865 CRC32;

 Query Match 88.7%; Score 47; DB 2; Length 145;
 Best Local Similarity 66.7%; Pred. No. 8.70e+01;
 Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

 Db 61 KKKWQ 66
 1 KKKWQ 6

 RESULT 9
 ID 060736 PRELIMINARY; PRT: 579 AA.
 AC 060736;
 DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
 DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
 DT 01-NOV-1996 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE ZONA PELLUCIDA 3 RECEPTOR PRECURSOR
 DE (SPERM FERTILIZATION PROTEIN SP56).
 GN ZP3R OR SP56.
 OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAQOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
 OC SCURONGNATHI; MORIDAE; MORINAE; MUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-HSD/ICR; TISSUE-TESTIS;
 RX MEDLINE; 95327956.
 RA BOOKBINDER L.H., CHENG A., BLEIL J.D.;
 RT "Tissue- and species-specific expression of sp56, a mouse sperm

RT fertilization protein[published erratum appears in Science 1995 Aug

KT 25;269(5227):11201.
 RL SCIENCE; 269:86-88(1995).
 DR EMBL; U17108; G897563; .
 DR MGI; MGI:104965; 2P3R.
 DR PFAM; PF00084; sushi; 7.

KM SIGNAL. 1 32 POTENTIAL.
 FT CHAIN 33 579 SPERM FERTILIZATION PROTEIN SP56.
 SQ SEQUENCE 579 AA; 64950 MW; 596D33DD CRC32.

Query Match 88.7%; Score 47; DB 11; Length 579;
 Best Local Similarity 66.7%; Pred. No. 8.70e+01;
 Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 556 KKWVQ 561
 1 KKWVQ 6

RESULT 10
 ID 057411 PRELIMINARY; PRT; 97 AA.
 AC 057411;
 DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
 DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
 DT 01-JUN-1998 (TREMBLREL. 06, LAST ANNOTATION UPDATE)
 DE LYMPHOTACTIN PRECURSOR.
 OS GALLUS GALLUS (CHICKEN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ARCHOSAURIA; AVES;
 OC NEOGNATHAE; GALLIFORMES; PHASIANIDAE; PHASIANINAE; GALLUS.
 RN [1]
 RP SEQUENCE FROM N.A.

RC TISSUE-SPLEEN;
 RA ROSSI D.L., BAZAN J.F., ZLOTNIK A.;
 RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL; AF006742; G2827882; .
 KM SIGNAL.

FT SIGNAL. 1 24 POTENTIAL.
 FT CHAIN 25 97 LYMPHOTACTIN.
 SQ SEQUENCE 97 AA; 11131 MW; 3290101C CRC32;

Query Match 86.8%; Score 46; DB 13; Length 97;
 Best Local Similarity 100.0%; Pred. No. 1.26e+02;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 78 QKWVQ 82
 1 QKWVQ 6

RESULT 11
 ID 051136 PRELIMINARY; PRT; 172 AA.
 AC 051136;
 DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
 DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE H11054 HOMOLOG (FRAGMENT).
 OS NEISSERIA MENINGITIDIS.
 OC BACTERIA; PROTEOBACTERIA; BETA SUBDIVISION; NEISSERIAEAE; NEISSERIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-M1080;
 RX MEDLINE; 96326323.
 RA ERWIN A.L., GOTSCHICH E.C.;
 RT "Cloning of a Neisseria meningitidis gene for L-lactate dehydrogenase (L-LDH): evidence for a second meningococcal L-LDH with different regulation";
 RT J. BACTERIOL. 178:4807-4813(1996).
 DR EMBL; U58911; G1381738; .
 FT NON_TER 1 1
 SQ SEQUENCE 172 AA; 19765 MW; 85CBB90D CRC32;

Query Match 86.8%; Score 46; DB 2; Length 172;

Best Local Similarity 100.0%; Pred. No. 1.26e+02;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 4 KKWV 8
 1 KKWV 5

RESULT 12
 ID 083516 PRELIMINARY; PRT; 187 AA.
 AC 083516;
 DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE HYPOTHETICAL 21.4 KD PROTEIN.
 GN TP0503.
 OS TREPONEMA PALLIDUM.
 OC BACTERIA; SPIROCHAETALES; SPIROCHAETACEAE; TREPONEMA.
 RN [1]
 RP SEQUENCE FROM N.A.

RX MEDLINE; 98332770.
 RA FRASER C.M., NORRIS S.J., WEINSTOCK G.M., WHITE O., SUTTON G.G.,
 RA DODSON R., GWINN M., HICKEY E.K., CLAYTON R., KETCHUM K.A.,
 RA SODERGREN E., HARDHAM J.M., MCLEOD M.P., SALZBERG S., PETERSON J.,
 RA KHALAK H., RICHARDSON D., HOWELL J.K., CHIDAMBARAM M., UTERBACK T.,
 RA MCDONALD L., ARTIACH P., BOWMAN C., COTTON M.D., FUJII C., GARLAND S.,
 RA HATCH B., HORST K., ROBERTS K., WATTHEY L., WEIDMAN J., SMITH H.O.,
 RA VENTER J.C.;
 RT "Complete genome sequence of Treponema pallidum, the syphilis
 RT Spirochete";
 RL SCIENCE 281:375-388(1998).
 RN [2]
 RP SEQUENCE FROM N.A.

RA FRASER C.M., NORRIS S.J., WEINSTOCK G.M., WHITE O., SUTTON G.G.,
 RA DODSON R., GWINN M., HICKEY E.K., CLAYTON R., KETCHUM K.A.,
 RA SODERGREN E., HARDHAM J.M., MCLEOD M.P., SALZBERG S., PETERSON J.,
 RA KHALAK H., RICHARDSON D., HOWELL J.K., CHIDAMBARAM M., UTERBACK T.,
 RA MCDONALD L., ARTIACH P., BOWMAN C., COTTON M.D., FUJII C., GARLAND S.,
 RA HATCH B., HORST K., ROBERTS K., WATTHEY L., WEIDMAN J., SMITH H.O.,
 RA VENTER J.C.;
 RL SUBMITTED (MAR-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL; AE001226; G3322795; .
 KM HYPOTHETICAL PROTEIN.
 SQ SEQUENCE 187 AA; 21410 MW; 50303E26 CRC32;

Query Match 86.8%; Score 46; DB 2; Length 187;
 Best Local Similarity 100.0%; Pred. No. 1.26e+02;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 37 QKWVQ 41
 1 QKWVQ 6

RESULT 13
 ID 067646 PRELIMINARY; PRT; 289 AA.
 AC 067646;
 DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
 DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE LEUCYL-TRNA SYNTHETASE BETA SUBUNIT.
 GN LEUS;
 OS AQUIFEX AEOLICUS.
 OC BACTERIA; AQUIFICALES; AQUIFICACEAE; AQUIFEX.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-VF5;
 RX MEDLINE; 98196666.
 RA DECKERT G., WARREN P.V., GAASTERLAND T., YOUNG W.G., LENOX A.L.,
 RA GRAHAM D.E., OVERBEER R., SNEAD M.A., KELLER M., ADUAY M., HUBER R.,
 RA FELDMAN R.A., SHORT J.M., OLSON G.J., SWANSON R.V.;
 RT "The complete genome of the hyperthermophilic bacterium Aquifex
 RT aeolicus";

RL NATURE 392:353-358(1998).
RM [2]
RP SEQUENCE FROM N.A.
RC STRAIN-VF5;
RA DECKERT G., WARREN P.V., GASTERLAND T., YOUNG W.G., LENOX A.L.,
RA GRAHAM D.E., OVERBEEK R., SNEAD M.A., KELLER M., AJJAY M., HUBER R.,
RA FELDMAN R.A., SHORT J.M., OLSON G.J., SMANSON R.V.;
RL SUBMITTED (JUL-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AE000735; G2984068; -.
KW AMINOACYL-TRNA SYNTHETASE.
SQ SEQUENCE 289 AA; 33535 MW; 65FB9A21 CRC32;

Query Match 86.8%; Score 46; DB 2; Length 289;
Best Local Similarity 100.0%; Pred. No. 1.26e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 265 OKWVQ 269
|1111|
QY 2 OKWVQ 6

RESULT 14
ID 057833 PRELIMINARY; PRT; 334 AA.
AC 057833;
DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
DE 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
DE 334AA LONG HYPOTHETICAL PROTEIN.
GN PHCXL12.
OS PYROCOCCLUS HORIKOSHII.
OC ARCHAEE: EURYARCHAEOTA; THERMOCOCCALES; THERMOCOCCACEAE; PYROCOCCLUS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-013;
RA KAMARABAYASI Y., SAWADA M., HORIKAWA H., HAIKAWA Y., HINO Y.,
RA YAMAMOTO S., SEKINE M., BABA S., KOSUGI H., HOSOGAMA A., NAGAI Y.,
RA SAKAI M., OGURA K., OTSUKA R., NAKAZAWA H., TAKAMITA M., OHFUKU Y.,
RA FUNAHASHI T., TANAKA T., KUDOH Y., YANAZAKI J., KUSHIDA N., OGUCHI A.,
RA AOKI K., YOSHIZAWA T., NAKAMURA Y., MASUCHI Y., SHIZUYA H.,
RA KIKUCHI H.;
RL SUBMITTED (DEC-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AB009467; D1027216; -.
SQ SEQUENCE 334 AA; 36602 MW; 6F4BA2E5 CRC32;

Query Match 86.8%; Score 46; DB 1; Length 334;
Best Local Similarity 66.7%; Pred. No. 1.26e+02;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 290 KEKWH 295
|1111|
QY 1 KOKWVQ 6

RESULT 15
ID 076961 PRELIMINARY; PRT; 403 AA.
AC 076961;
DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CALRETICULIN PRECURSOR.
GN CRT.
OS NECATOR AMERICANDUS.
OC EUKARYOTA; METAZOA; NEMATODA; SECERNENTEA; RHABDITIA; STRONGYLIDA;
OC ANCILOSTOMATOIDEA; ANCILOSTOMATIDAE; BUNOSTOMINAE; NECACTOR.
RN [1]
RP SEQUENCE FROM N.A.
RA PRITCHARD D.I., BROWN A., MCLEROY P., LOUKAS A., GIRDWOOD K.,
RA BERRY C., FULKRUG R., BECK E.;
RT "Calreticulin is a hookworm allergen."
RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AJ006790; E1300555; -.
DR PROSITE: PS00803; CALRETICULIN_1; 1.
DR PROSITE: PS00804; CALRETICULIN_2; 1.

DR PROSITE: PS00805; CALRETICULIN_REPEAT; 3.
KW SIGNAL; ALLERGEN.
FT SIGNAL 1
SQ SEQUENCE 403 AA; 46833 MW; B94E0D6A CRC32;

Query Match 86.8%; Score 46; DB 5; Length 403;
Best Local Similarity 66.7%; Pred. No. 1.26e+02;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 30 KEKWH 35
|1111|
QY 1 KOKWVQ 6

RESULT 16
ID 041898 PRELIMINARY; PRT; 421 AA.
AC 041898;
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE POLYPROTEIN (FRAGMENT).
OS RICE NECROSIS MOSAIC VIRUS.
OC VIRUSES; SSRNA POSITIVE-STRAND VIRUSES, NO DNA STAGE; POTYVIRIDAE;
OC BYMOVIRUS.
RN [1]
RP SEQUENCE FROM N.A.
RA BADGE J.L., KASHIMAZAKI S., LOCK S., FOSTER G.D.;
RL EUR. J. PLANT PATHOL. 0:0-0(1997).
DR EMBL: U95205; G2443461; -.
DR PFAM: PF00767; P0ty_coat; 1.
KW POLYPROTEIN.
FT NON_TER 1
SQ SEQUENCE 421 AA; 47711 MW; 6FE8B9A5 CRC32;

Query Match 86.8%; Score 46; DB 14; Length 421;
Best Local Similarity 100.0%; Pred. No. 1.26e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 254 OKWVQ 258
|1111|
QY 2 OKWVQ 6

RESULT 17
ID 045303 PRELIMINARY; PRT; 912 AA.
AC 045303; 045877;
DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE C45G3.3 PROTEIN.
GN C45G3.3.
OS CAENORHABDITIS ELEGANS.
OC EUKARYOTA; METAZOA; NEMATODA; SECERNENTEA; RHABDITIA; RHABDITIDA;
OC RHABDITINA; RHABDITOIDEA; RHABDITIDAE; PELODERINAE; CAENORHABDITIS.
RN [1]
RP SEQUENCE FROM N.A.
RA BARLOW K.;
RL SUBMITTED (NOV-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 94130718.
RA WILSON R., AINSCOUGH R., ANDERSON K., BAYNES C., BERKS M., BONFIELD J.,
RA BURTON J., CONNELL M., COPESEY T., COOPER J., COULSON A., CRAYTON M.,
RA DEAR S., DG Z., DURBIN R., FAVELLO A., FULTON L., GARDNER A., GREEN P.,
RA HAWKINS T., HILLIER L., JIER M., JOHNSTON L., JONES M., KERSHAW J.,
RA KIRSTEN J., LAISTER N., LATREILLE P., LIGHTING J., LLOYD C.,
RA MCWIRRAY A., MORTIMORE B., O'CALLAGHAN M., PARSONS J., PERCY C.,
RA RIEKEN L., ROOPRA A., SAUNDERS D., SHOWNKEEN R., SWALDON N., SMITH A.,
RA SONNHAMMER E., STADEN R., SULSTON J., THIERRY-MIEG J., THOMAS K.,
RA VAUDIN M., VAUGHAN K., WATERSTON R., WATSON A., WEINSTOCK L.,
RA WILKINSON-SPROAT J., WOHLDMAN P.;
RT "2.2 Mb of contiguous nucleotide sequence from chromosome III of C. elegans.";

```

RL NATURE 368:32-36(1994).
RN [3]
RP SEQUENCE FROM N.A.
RA SNEY R.;
RL SUBMITTED (NOV-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: 292780; E1321927; -.
DR EMBL: AL021466; E1321927; JOINED.
DR EMBL: AL021466; E1315522; -.
DR EMBL: 292780; E1315522; JOINED.
SQ SEQUENCE 912 AA; 104030 MW; 1299986C CRC32;

Query Match
Best Local Similarity 100.0%; Score 46; DB 5; Length 912;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 821 KOKWV 825
QY 1 KOKWV 5

RESULT 18
ID P78363 PRELIMINARY; PRT: 2273 AA.
AC P78363;
DT 01-MAY-1997 (TREMBLREL. 03, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE ATP-BINDING CASSETTE TRANSPORTER.
GN ABCR.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
CC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 97207641.
RA ALLIKMETS R., SINGH N., SUN H., SHROYER N.F., HUTCHINSON A.,
RA CHIDAMBARAM A., GERRARD B., BAIRD L., STAUFFER D., PEIFFER A.,
RA RATTNER A., SMALLWOOD P., LI Y., ANDERSON K.L., LEWIS R.A., NATHANS J.,
RA LEPPER M., DEAN M., LIPSKE J.R.;
RT "A photoreceptor cell-specific ATP-binding transporter gene (ABCR) is
RT mutated in recessive Stargardt macular dystrophy."
RL NAT. GENET. 15:236-246(1997).
DR EMBL: U88667; G1888527; -.
KM ATP-BINDING.
SQ SEQUENCE 2273 AA; 256042 MW; EB380008 CRC32;

Query Match
Best Local Similarity 86.8%; Score 46; DB 4; Length 2273;
Matches 5; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 1476 KOKWQ 1481
QY 1 KOKWQ 6

RESULT 19
ID 015112 PRELIMINARY; PRT: 2273 AA.
AC 015112;
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE ATP-BINDING CASSETTE TRANSPORTER.
GN ABCR.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
CC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 97345663.
RA AZARIAN S.M., TRAVIS G.H.;
RT "The photoreceptor rim protein is an ABC transporter encoded by the
RT gene for recessive Stargardt's disease (ABCR).";
RL FEBS LETT. 409:247-252(1997).
RN [2]

RP SEQUENCE FROM N.A.
RA AZARIAN S.M., TRAVIS G.H.;
RL SUBMITTED (APR-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [3]
RP SEQUENCE FROM N.A.
RA AZARIAN S.M., TRAVIS G.H.;
RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AF000148; G3243082; -.
DR PFM: PFD00005; ABC_tran; 2.
KV ATP-BINDING.
SQ SEQUENCE 2273 AA; 255948 MW; EEB83A0D CRC32;

Query Match
Best Local Similarity 86.8%; Score 46; DB 4; Length 2273;
Matches 5; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 1476 KOKWQ 1481
QY 1 KOKWQ 6

RESULT 20
ID 060438 PRELIMINARY; PRT: 2273 AA.
AC 060438;
DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE RIM ABC TRANSPORTER.
GN ABCR.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
CC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 98141123.
RA NASONKIN I., ILLING M., KOEHLER M.R., SCHMID M., MOLDAY R.S.,
RA WEBER B.H.;
RT "Mapping of the rod photoreceptor ABC transporter (ABCR) to 1p21-p22.1
RT and identification of novel mutations in Stargardt's disease."
RL HUM. GENET. 102:21-26(1998).
RN [2]
RP SEQUENCE FROM N.A.
RA NASONKIN I., ILLING M.E., MOLDAY R.S.;
RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AF001945; G2959643; -.
SQ SEQUENCE 2273 AA; 255991 MW; D8A82C98 CRC32;

Query Match
Best Local Similarity 86.8%; Score 46; DB 4; Length 2273;
Matches 5; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 1476 KOKWQ 1481
QY 1 KOKWQ 6

RESULT 21
ID 060915 PRELIMINARY; PRT: 2273 AA.
AC 060915;
DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE ABCR.
GN ABCR.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
CC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 98163759.
RA GERBER S., ROZET J.M., VAN DE POL T.J.R., HOYING C.B., MUNNICH A.,
RA BLANKENAGEL A., KAPLAN J., CREMERS F.P.M.;
RT "Complete exon-intron structure of the retina-specific ATP binding

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OC CATARRHINI; HOMINIDAE; HOMO.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA PATEL V.P., KREIDER B.L., LI Y., LI H., LEUNG K., SALCEDO T.,
 RA NADELLEL B., PIPPALDA V., GENZT S., THOTAKURA R., PARMELEE D.,
 RA GENZT R., GANOTA G.;
 RL J. EXP. MED. 0:0-0(0).
 DR EMBL; 085768; G1916252; -
 DR PFM; PF00048; 118; 1.
 SQ SEQUENCE 119 AA; 13119 MW; CDF526F0 CRC32;

Query Match 84.9%; Score 45; DB 4; Length 119;
 Best Local Similarity 83.3%; Pred. No. 1.83e+02;
 Matches 5; Conservative 0; Mismatches 1; Indels 0; Gaps 0

Db 78 KOEWVO 83
 1 1 1 1
 Oy 1 KOKWVO 6

RESULT 23
 ID 031562 PRELIMINARY; PRT; 178 AA.
 AC 031562;
 DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
 DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE YFET PROTEIN.
 GN YFET.
 OS BACILLUS SUBTILIS.
 OC BACTERIA; FIRMICUTES; BACILLUS/CLOSTRIDIUM GROUP; BACILLACEAE;
 OC BACILLUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RP STRAIN-168;
 RC MEDLINE; 98044033.
 RX KUNST F., OGASAWARA N., MOSZER I., ALBERTINI A.M., ALLONI G.,
 RA AZEVEDO V., BERTERO M.G., BESSIERES P., BODOTIN A., BORCHERT S.,
 RA BORRIS R., BOUSCHER L., BRANS A., BRAN M., BRINELL S.C., BRON S.,
 RA BROUILLET S., BRUSCHI C.V., CALDWELL B., CAPUANO V., CARTER N.M.,
 RA CHOI S.K., CODANI J.J., CONNERTON I.F., CUMMINGS N.J., DANIEL R.A.,
 RA DENIZOT F., DEVINE K.M., DUSTERHOFF A., EHRLICH S.D., EMERSON P.T.,
 RA ENRIAN K.D., ERKINGTON J., FABRET C., FERRARI E., FOULGER D., FRITZ C.,
 RA FUJITA M., FUJITA Y., FUMA S., GALIZZI A., GALLERON N., GHIM S.Y.,
 RA GLASER P., GOFFEAU A., GOLIGHTLY E.J., GRANDI G., GIUSEPPI G.,
 RA GUY B.J., HAGA K., HAIECH J., HARWOOD C.R., HENAUT A., HILBERT H.,
 RA HOSAPPEL S., HOSONO S., HULLO M.F., ITRAY M., JONES L., JORIS B.,
 RA KARAKATA D., KASAHARA Y., KLEERR-BLANCARD M., KLEIN C., KOBAISHI Y.,
 RA KOTTER P., KONINGSSTEIN G., KROCH S., KUMANO M., KUNITA K., LAPIDUS A.,
 RA LADINOIS S., LAUBER J., LAZAREVIC V., LEE S.M., LEVINE A., LIU H.,
 RA MASUDA S., MAUEL C., MEDIGUE C., MEDINA N., MELLADO R.P., MIZONO M.,
 RA MOSTEL D., NAKAI S., NOBACK M., NOONE D., O'BEILLY M., OGAWA K.,
 RA OGIMAWA A., OUDSGA B., PARK S.H., PARRO V., POHL T.M., PORTEILLE D.,
 RA POMOLLIK S., PRESCOTT A.M., PRESECAN E., PUIC P., PURRELLE B.,
 RA RAPOPORT G., REY M., REYNOLDS S., RIEGER M., RIVOLTA C., ROCHA E.,
 RA ROCHE B., ROSE M., SADAIE Y., SATO T., SCANLAN E., SCHEICH S.,
 RA SCHROETER R., SCOPFONE F., SEKIGUCHI J., SEKOWSKA A., SEROT S.J.,
 RA SEROT P., SHIN B.S., SOLDI B., SOROKIN A., TACCONI E., TAKAGI T.,
 RA TAKAHASHI H., TAKEWAKU K., TAKEUCHI M., TAKAKOSHI A., TANAKA T.,
 RA TERPSTRA P., TOSONARI A., TOSATO V., UCHIMAWA S., VANDENBOL M.,
 RA VANNIER F., VASSAROTTI A., VIARI A., WAMBOIT R., WEDLER H.,
 RA WETZNEGGER T., WINTERS P., WIPAT A., YANAMOTO H., YAMANE K.,
 RA YASUMOTO K., YANA K., YOSHIDA K., YOSHIKAWA H.F., ZUMSTEIN E.,
 RA YOSHIKAWA H., DANCHIN A.;
 RT "The complete genome sequence of the gram-positive bacterium *Bacillus*
 RT subtilis.";
 RL NATURE 390:249-256(1997).
 RN [2]
 RP SEQUENCE FROM N.A.
 RP STRAIN-168;
 RC KUNST F., OGASAWARA N., YOSHIKAWA H., DANCHIN A.;
 RL SUBMITTED (NOV-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [3]
 RP SEQUENCE FROM N.A.

RC MEDLINE: 97101647.
RA YAMAMOTO H., UCHIYAMA S., SEKIGUCHI J.,
RT "Cloning and sequencing of a 27.8-kb nucleotide sequence of the 79
RT degrees-81 degrees region of the Bacillus subtilis genome containing
RT the spe locus."
RL DNA RES. 3:257-262(1996).
DR EMBL: 299108; E1182829; -
DR EMBL: D85082; D1025376; -
SQ SEQUENCE 178 AA; 20666 MW; AAB036C7 CRC32;

Query Match 84.9%; Score 45; DB 2; Length 178;
Best Local Similarity 66.7%; Pred. No. 1.83e+02;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 24 KKWQIO 29
1:1:1:1
QY 1 KKWQVO 6

RESULT 24
ID 017645 PRELIMINARY; PRT; 383 AA.
AC 017645;
DT 01-JAN-1998 (TREMBLER. 05, CREATED)
DT 01-JAN-1998 (TREMBLER. 05, LAST SEQUENCE UPDATE)
DE 01-NOV-1998 (TREMBLER. 08, LAST ANNOTATION UPDATE)
DE C3AF6.4.
OS CAENORHABDITIS ELEGANS.
OC EUKARYOTA; METAZOA; NEMATODA; SECERNENTEA; RHABDITIA; RHABDITIDA;
OC RHABDITINA; RHABDITOIDEA; RHABDITIDAE; PELODERINAE; CAENORHABDITIS.
RN [1]
RP SEQUENCE FROM N.A.
RA WHITE S.;
RL SUBMITTED (JAN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 94150718.
RA WILSON R., AINSCOUGH R., ANDERSON K., BAYNES C., BERKS M., BONFIELD J.,
RA BURTON J., CONNELL M., COPSEY T., COOPER J., COULSON A., CRAXTON M.,
RA DEAR S., DU Z., DURBIN R., FAVELLO A., FULTON L., GARDNER A., GREEN P.,
RA HARKINS T., HILLIER L., JIER M., JOHNSTON L., JONES M., KERSHAW J.,
RA KIRSTEN J., LAISTER N., LATREILLE P., LIGHTNING J., LLOYD C.,
RA MCURRAY A., MORTIMORE B., O'CALLAGHAN M., PARSONS J., PERCY C.,
RA RIEFEN L., ROOPRA A., SAUNDERS D., SHOWNKEEN R., SMALDON N., SMITH A.,
RA SONNHAMMER E., STADEN R., SULSTON J., THIERRY-MIEG J., THOMAS K.,
RA VAIDIN M., VAUGHAN K., WATERSTON R., WATSON A., WEINSTOCK L.,
RA WILKINSON-SPROAT J., WOHLDMAN P.;
RT "2.2 Mb of contiguous nucleotide sequence from chromosome III of C.
RT elegans."
RL NATURE 368:32-38(1994).
DR EMBL: 281479; E1186781; -
SQ SEQUENCE 383 AA; 45051 MW; CA113BD9 CRC32;

Query Match 84.9%; Score 45; DB 5; Length 383;
Best Local Similarity 66.7%; Pred. No. 1.83e+02;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 178 KKWQIO 183
1:1:1:1
QY 1 KKWQVO 6

RESULT 25
ID 060646 PRELIMINARY; PRT; 475 AA.
AC 060646;
DT 01-AUG-1998 (TREMBLER. 07, CREATED)
DT 01-AUG-1998 (TREMBLER. 07, LAST SEQUENCE UPDATE)
DE 01-NOV-1998 (TREMBLER. 08, LAST ANNOTATION UPDATE)
DE HYPOTHETICAL 53.8 KD PROTEIN (FRAGMENT).
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.

RC TISSUE-BRAIN;
RX MEDLINE: 96207227.
RA ANDERSSON B., WENTLAND M.A., RICAFFENTE J.Y., LIU W., GIBBS R.A.;
RT "A "double adaptor" method for improved shotgun library
RT construction."
RL ANAL. BIOCHEM. 236:107-113(1996).
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE-BRAIN;
RX MEDLINE: 97264341.
RA YU W., ANDERSSON B., MORLEY R.C., MUZNY D.M., DING Y., LIU W.,
RA RICAFFENTE J.Y., WENTLAND M.A., LENNON G., GIBBS R.A.;
RT "Large-scale concatenation cDNA sequencing."
RL GENOME RES. 7:353-358(1997).
RN [3]
RP SEQUENCE FROM N.A.
RC TISSUE-BRAIN;
RA YU W., GIBBS R.A.;
RL SUBMITTED (MAR-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AF055010; G3005733; -
KW HYPOTHETICAL PROTEIN.
FT NON_TER 1
SQ SEQUENCE 475 AA; 53799 MW; 214CB079 CRC32;

Query Match 84.9%; Score 45; DB 4; Length 475;
Best Local Similarity 66.7%; Pred. No. 1.83e+02;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 314 KEKWE 319
1:1:1:1
QY 1 KKWQVO 6

RESULT 26
ID 023206 PRELIMINARY; PRT; 483 AA.
AC 023206;
DT 01-NOV-1996 (TREMBLER. 01, CREATED)
DT 01-NOV-1996 (TREMBLER. 01, LAST SEQUENCE UPDATE)
DE 01-AUG-1998 (TREMBLER. 07, LAST ANNOTATION UPDATE)
DE SIMILARITY TO NUCLEOLUS-CYTOPLASM SHUTTLE PHOSPHOPROTEIN.
GN W06E11.1.
OS CAENORHABDITIS ELEGANS.
OC EUKARYOTA; METAZOA; NEMATODA; SECERNENTEA; RHABDITIA; RHABDITIDA;
OC RHABDITINA; RHABDITOIDEA; RHABDITIDAE; PELODERINAE; CAENORHABDITIS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-BRISTOL N2;
RA WILSON R., AINSCOUGH R., ANDERSON K., BAYNES C., BERKS M., BONFIELD J.,
RA BURTON J., CONNELL M., COPSEY T., COOPER J., COULSON A., CRAXTON M.,
RA DEAR S., DU Z., DURBIN R., FAVELLO A., FULTON L., GARDNER A., GREEN P.,
RA HARKINS T., HILLIER L., JIER M., JOHNSTON L., JONES M., KERSHAW J.,
RA KIRSTEN J., LAISTER N., LATREILLE P., LIGHTNING J., LLOYD C.,
RA MCURRAY A., MORTIMORE B., O'CALLAGHAN M., PARSONS J., PERCY C.,
RA RIEFEN L., ROOPRA A., SAUNDERS D., SHOWNKEEN R., SMALDON N., SMITH A.,
RA SONNHAMMER E., STADEN R., SULSTON J., THIERRY-MIEG J., THOMAS K.,
RA VAIDIN M., VAUGHAN K., WATERSTON R., WATSON A., WEINSTOCK L.,
RA WILKINSON-SPROAT J., WOHLDMAN P.;
RL NATURE 0:0-0(0).
RN [2]
RP SEQUENCE FROM N.A.
RC STRAIN-BRISTOL N2;
RA FULTON L.;
RL SUBMITTED (MAR-1995) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [3]
RP SEQUENCE FROM N.A.
RC STRAIN-BRISTOL N2;
RA WATERSTON R.;
RL SUBMITTED (FEB-1995) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: U20862; G669020; -
SQ SEQUENCE 483 AA; 55009 MW; 6C9BB6E6 CRC32;

Query Match 84.9%; Score 45; DB 5; Length 483;
Best Local Similarity 83.3%; Pred. No. 1.83e+02;

Matches 5; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 458 KAKWVO 463

Qy 1 KOKWVO 6

RESULT 27
ID 062146 PRELIMINARY; PRT: 593 AA.

AC 062146;

DT 01-AUG-1998 (TREMBLREL. 07, CREATED)

DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)

DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)

DE F09B12.3.

OS CAENORHABDITIS ELEGANS.

OC EUKARYOTA; METAZOA; NEMATODA; SECERNENTEA; RHABDITIA; RHABDITIDA;

RN RHABDITIDA; RHABDITOIDEA; RHABDITIDAE; PELODERINAE; CAENORHABDITIS.

RP LLOYD C.;

RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.

RN [2]

RP SEQUENCE FROM N.A.

RX MEDLINE: 94150718.

RA BURTON J., CONNELL M., COSEY T., COOPER J., COULSON A., CRAXTON M.,

DEAR S., DU Z., DURBIN R., FAVELLO A., FULTON L., GARDNER A., GREEN P.,

HAKINS T., HILLER L., JIER M., JOHNSTON L., JONES M., KERSHAW J.,

KISTEN T., LAISTER N., LATREILLE P., LIGHTING J., LLOYD C.,

MCURRAY A., MORTIMORE B., O'CALLAGHAN M., PARSONS J., PERCY C.,

RITKEN L., ROOPRA A., SAUNDERS D., SHOWNKEEN R., SMALDON N., SMITH A.,

VAUDIN M., VAUGHAN K., WATSON R., WATSON A., WEINSTOCK L.,

WILKINSON-SPROAT J., WOHLDMAN P.;

RT "2.2 Mb of contiguous nucleotide sequence from chromosome III of C.

RT elegans";

RL NATURE 368:32-38(1994).

DR EMBL: 283104; E1297723;

SO SEQUENCE 593 AA; 68139 MW; 7AE2795D CRC32;

Query Match 84.9%; Score 45; DB 5; Length 593;

Best Local Similarity 66.7%; Pred. No. 1.83e+02;

Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 156 NOKWIO 161

Qy 1 KOKWVO 6

RESULT 28
ID 023532 PRELIMINARY; PRT: 1038 AA.

AC 023532;

DT 01-JAN-1998 (TREMBLREL. 05, CREATED)

DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)

DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)

DE RESISTANCE GENE.

OS ARABIDOPSIS THALIANA (MOUSE-EAR CRESS).

OC EUKARYOTA; VIRIDIPHYTES; CHAROPHYTA/EMBRYOPHYTA GROUP; EMBRYOPHYTA;

OC TRACHEOPHYTA; EUPHYLOPHYTES; SPERMATOPHYTA; MAGNOLIOPHYTA;

OC EUDICOTYLEDONS; ROSIDAE; CAPRALES; BRASSICACEAE; ARABIDOPSIS.

RN [1]

RP SEQUENCE FROM N.A.

RA BEVAN M., STIEKEMA W., MURPHY G., WAMBUTT R., POHL T., TERRY N.,

RA KREIS M., KAVANAGH T., ENLIAN K.D., RIEGER M., JAMES R.,

RA PUTDOMENICH P., HATZIOPOULOS P., OBERMAIER B., DUESTERHOFF A.,

RA JONES J., PALME K., ANSORGE W., DELSENY M., BANCROFT I., MENES H.W.,

RA SCHUELLER C., CHALMUTZIS N.;

RL SUBMITTED (JUL-1997) TO EMBL/GENBANK/DBJ DATA BANKS.

RN [2]

RP SEQUENCE FROM N.A.

RA EU ARABIDOPSIS SEQUENCING PROJECT, ESSA;

RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.

DR PFAM: PF00560; LRR; 4.
DR PFAM: PF00931; NB-ARC; 1.
SQ SEQUENCE 1038 AA; 117379 MW; 142121DD CRC32;

Query Match 84.9%; Score 45; DB 10; Length 1038;

Best Local Similarity 66.7%; Pred. No. 1.83e+02;

Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 135 KOKWVO 140

Qy 1 KOKWVO 6

RESULT 29
ID 075050 PRELIMINARY; PRT: 2276 AA.

AC 075050;

DT 01-NOV-1998 (TREMBLREL. 08, CREATED)

DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)

DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)

DE KIA0462 PROTEIN (FRAGMENT).

GN KIA0462.

OS HOMO SAPIENS (HUMAN).

OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;

RN PRIMATES; CATARRHINI; HOMINIDAE; HOMO.

RP SEQUENCE FROM N.A.

RC TISSUE-BRAIN;

RX MEDLINE: 98116662.

RA SEKI N., OHIRA M., NAGASE T., ISHIKAWA K., MIYAJIMA N., NAKAJIMA D.,

RA NOUNURA N., OHARA O.;

RT "Characterization of cDNA clones in size-fractionated cDNA libraries

RT from human brain";

RL DNA RES. 4:345-349(1997).

DR EMBL: AB007931; D1033269;

FT NON-TER 1

SO SEQUENCE 2276 AA; 255392 MW; BB547F85 CRC32;

Query Match 84.9%; Score 45; DB 4; Length 2276;

Best Local Similarity 66.7%; Pred. No. 1.83e+02;

Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 2115 KEXWVE 2120

Qy 1 KOKWVO 6

RESULT 30
ID 003005 PRELIMINARY; PRT: 141 AA.

AC 003005;

DT 01-JUL-1997 (TREMBLREL. 04, CREATED)

DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)

DT 01-JUL-1997 (TREMBLREL. 04, LAST ANNOTATION UPDATE)

DE ORF2280 GENE HOMOLOG (FRAGMENT).

OS GRAYIA SPINOSA.

OC CHLOROPLAST.

OC EUKARYOTA; VIRIDIPHYTES; CHAROPHYTA/EMBRYOPHYTA GROUP; EMBRYOPHYTA;

OC TRACHEOPHYTA; EUPHYLOPHYTES; SPERMATOPHYTA; MAGNOLIOPHYTA;

OC EUDICOTYLEDONS; CAROPHYLLIDAE; CAROPHYLLALES; CHENOPODIACEAE;

OC GRAYIA.

RN [1]

RP SEQUENCE FROM N.A.

RA DOWNIE S.R., KATZ-DOWIE D.S., CHO K.J.;

RA AM. J. BOT. 84:253-273(1997).

DR EMBL: U48553; E309444;

KW CHLOROPLAST.

FT NON-TER 1

SO SEQUENCE 141 AA; 17259 MW; B1AFCE0 CRC32;

Query Match 83.0%; Score 44; DB 8; Length 141;

Best Local Similarity 66.7%; Pred. No. 2.62e+02;

Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Thu Apr 1 08:26:16 1999

US-08-927-939-9.rspt

Page 10

Db 55 ROKWVR 60
:||||:
QY 1 KOKWVQ 6

Search completed: Thu Apr 1 07:32:07 1999
Job time : 33 secs.

MORSE
(TM)

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MORSE_PP protein - protein database search, using Smith-Waterman algorithm
Thu Apr 1 07:35:40 1999; MasPar time 2.83 Seconds
68.599 Million cell updates/sec

Title: >US-08-927-939-10
Description: (1-12) from US08927939.pep
Perfect Score: 101
Sequence: 1 EICLDPRKQKMWQ 12

Scoring table:
PAM 150
Gap 15

Searched: 131922 seqs, 16180660 residues

Post-processing: Minimum Match 0%
Listing first 100 summaries

Database:

a-geneseg32
1:part1 2:part2 3:part3 4:part4 5:part5 6:part6 7:part7
8:part8 9:part9 10:part10 11:part11 12:part12 13:part13
14:part14 15:part15 16:part16 17:part17 18:part18
19:part19 20:part20 21:part21 22:part22 23:part23
24:part24 25:part25 26:part26 27:part27 28:part28
29:part29

Statistics: Mean 18.794; Variance 62.992; scale 0.298

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description	Pred. No.
1	93	92.1	99	2	R06398 Human MCF precursor.	1.00e-02
2	90	89.1	66	24	W13598 Monocyte chemoattract	2.12e-02
3	90	89.1	67	24	W13599 Monocyte chemoattract	2.12e-02
4	90	89.1	68	24	W13597 Monocyte chemoattract	2.12e-02
5	90	89.1	69	14	R87678 des(2-8) MCP-1.	2.12e-02
6	90	89.1	69	24	W13596 Monocyte chemoattract	2.12e-02
7	90	89.1	76	20	W09374 Monocyte chemoattract	2.12e-02
8	90	89.1	76	1	P90292 Peptide from human g1	2.12e-02
9	90	89.1	76	14	R87675 (28-ASP) MCP-1.	2.12e-02
10	90	89.1	76	10	R53398 Sense MCP-1.	2.12e-02
11	90	89.1	76	14	R87676 (24-Arg) MCP-1.	2.12e-02
12	90	89.1	76	5	R26600 MCF.	2.12e-02
13	90	89.1	76	14	R87677 (3-Ala) MCP-1.	2.12e-02
14	90	89.1	76	15	R87680 Monocyte chemoattract	2.12e-02
15	90	89.1	76	21	W11131 Mature human monocyte	2.12e-02
16	90	89.1	77	15	R86859 Mature MCP-1.	2.12e-02
17	90	89.1	99	14	R73914 Human monocyte chemo	2.12e-02
18	90	89.1	99	13	R70800 Chemoattractant prote	2.12e-02

19	90	89.1	99	2	P95387 Human monocyte chemo-	2.12e-02
20	90	89.1	99	5	R26663 MCF.	2.12e-02
21	86	85.1	29	4	R20237 NAF(44-72) peptide in	5.71e-02
22	86	85.1	39	22	W04515 Interleukin-8(34-72)	5.71e-02
23	86	85.1	67	7	R38087 Modified human interl	5.71e-02
24	86	85.1	67	7	R38086 Modified human interl	5.71e-02
25	86	85.1	68	7	R38085 Modified human interl	5.71e-02
26	86	85.1	68	7	R38083 Modified human interl	5.71e-02
27	86	85.1	68	7	R38084 Modified human interl	5.71e-02
28	86	85.1	69	7	R38081 Modified human interl	5.71e-02
29	86	85.1	69	7	R38082 Modified human interl	5.71e-02
30	86	85.1	71	27	W23675 Drol3+ chemokine beta	5.71e-02
31	86	85.1	72	11	R70183 Soluble interleukin-8	5.71e-02
32	86	85.1	72	1	R03615 Human neutrophil chem	5.71e-02
33	86	85.1	72	23	W4519 Neutrophil chemotacti	5.71e-02
34	86	85.1	72	23	W25714 Mutant human IL-8, Y1	5.71e-02
35	86	85.1	72	23	W25708 Mutant human IL-8, S1	5.71e-02
36	86	85.1	72	23	W25701 Mutant human IL-8, R4	5.71e-02
37	86	85.1	72	24	W26204 Neutrophil-specific C	5.71e-02
38	86	85.1	72	23	W25713 Mutant human IL-8, F2	5.71e-02
39	86	85.1	72	26	P81838 Sequence of a synthe	5.71e-02
40	86	85.1	72	23	W25710 Mutant human IL-8, D4	5.71e-02
41	86	85.1	72	23	W25707 Mutant human IL-8, Y1	5.71e-02
42	86	85.1	72	23	W25709 Mutant human IL-8, V4	5.71e-02
43	86	85.1	72	20	R98803 Chemokine-like protei	5.71e-02
44	86	85.1	72	20	R98812 Chemokine-like protei	5.71e-02
45	86	85.1	72	20	R98805 Chemokine-like protei	5.71e-02
46	86	85.1	72	20	R98806 Chemokine-like protei	5.71e-02
47	86	85.1	72	1	P90913 Sequence of a synthe	5.71e-02
48	86	85.1	72	20	R98804 Chemokine-like protei	5.71e-02
49	86	85.1	72	22	W04516 Interleukin(1-72) pro	5.71e-02
50	86	85.1	72	7	R30800 Human interleukin-8 m	5.71e-02
51	86	85.1	72	1	R03166 Human neutrophil chem	5.71e-02
52	86	85.1	73	17	P88057 Human interleukin-8.	5.71e-02
53	86	85.1	73	1	P90078 Human neutrophil acti	5.71e-02
54	86	85.1	73	20	R98817 Chemokine-like protei	5.71e-02
55	86	85.1	73	20	R98818 Chemokine-like protei	5.71e-02
56	86	85.1	73	20	R98814 Chemokine-like protei	5.71e-02
57	86	85.1	73	20	R98815 Chemokine-like protei	5.71e-02
58	86	85.1	75	27	W26673 Bac 3 chemokine beta	5.71e-02
59	86	85.1	77	27	W26672 Human neutrophil bet	5.71e-02
60	86	85.1	77	1	P90017 Human neutrophil acti	5.71e-02
61	86	85.1	77	1	R15168 (Ala IL-8)/77 leukocy	5.71e-02
62	86	85.1	79	27	W26674 Drol1/2 chemokine bet	5.71e-02
63	86	85.1	82	27	W16655 Stem cell mobilising	5.71e-02
64	86	85.1	82	24	W16655 Interleukin-8/NAP-1.	5.71e-02
65	86	85.1	98	27	W26700 Human chemokine beta1	5.71e-02
66	86	85.1	98	28	W30191 Monocyte chemoattract	5.71e-02
67	86	85.1	98	17	R93087 Human chemokine beta-	5.71e-02
68	86	85.1	99	2	P93631 Amino acid sequence o	5.71e-02
69	86	85.1	99	1	R05239 Human neutrophil chem	5.71e-02
70	86	85.1	99	1	R05239 Mutant human IL-8, I4	7.31e-02
71	85	84.2	72	23	W25711 Sequence of bovine p6	7.31e-02
72	85	84.2	76	5	R26580 Sequence of p6 precursor	7.31e-02
73	85	84.2	99	5	R26581 Human monocyte chemo	1.20e-01
74	85	84.2	67	14	R73915 Mutant human IL-8, R4	1.20e-01
75	83	82.2	72	23	W25706 Mutant human IL-8, I4	1.20e-01
76	83	82.2	72	23	W25702 Chemotactant prote	1.20e-01
77	83	82.2	99	13	R70801 Cytochrome encoded by c	1.20e-01
78	83	82.2	109	9	R24353 Amino acid sequence o	1.53e-01
79	82	81.2	82	29	W44721 Human eosinocyte CC t	1.53e-01
80	82	81.2	97	24	W14990 Human eosinocyte CC t	1.53e-01
81	82	81.2	97	24	W14990 Human eosinocyte CC t	1.53e-01
82	82	81.2	97	24	W14990 Human eosinocyte CC t	1.53e-01
83	82	81.2	97	23	W25712 IL8 receptor-interact	4.05e-01
84	81	80.2	18	4	R23353 Putative glycylc binl1	4.05e-01
85	78	77.2	23	11	R58625 Human SDF-1-alpha.	4.05e-01
86	78	77.2	89	13	R75919 Protein encoded by cD	4.05e-01
87	78	77.2	89	13	R75919 Human SDF-1-beta	4.05e-01
88	78	77.2	93	13	R75420 Mutant human IL-8, E4	5.15e-01
89	78	77.2	93	13	R75420 Mutant human IL-8, E4	5.15e-01
90	77	76.2	72	23	W25704	5.15e-01

92	77	76.2	72.23	W25705	Mutant human IL-8, R4	5.15e-01
93	77	76.2	73.13	R70252	Eotaxin chemoattractant	5.15e-01
94	77	76.2	96.24	W14991	Guinea pig eosinocyte	5.15e-01
95	75	74.3	72.21	W11132	Human interleukin-8 u	8.34e-01
96	75	74.3	72.13	W12435	Chimeric interleukin-	8.34e-01
97	75	74.3	72.13	R70804	Chemoattractant MCP-2	8.34e-01
98	75	74.3	109.29	W42072	Human MC proprotein.	8.34e-01
99	75	74.3	109.26	W26655	Human beta-chemokine	8.34e-01
100	74	73.3	395.26	W23347	Novel murine CX3C 395	1.06e+00

ALIGNMENTS

RESULT 1
ID R06398 standard; protein; 99 AA.
AC R06398;
DE 14-DEC-1990 (first entry)
DE Human MCF precursor.
KM Monocyte chemotactic factor; antibacterial; antitumour; cancer.
OS Homo sapiens.
FH Key Location/Qualifiers
FT protein 24..99
FT /label-mature MCF
FT /note="Claim 1"
FT misc_difference 76
FT /label-A or T
UN W09007863-A.
PD 26-JUL-1990.
PE 02-JAN-1990; U00004.
PR 01-JAN-1989; JP-000065.
PR 03-FEB-1989; JP-026438.
PA (USDC) US SEC OF COMMERCE.
PI Furutani Y, Fukui T, Junichi Y, Masaaki Y, Matsushima K;
PI Openheim J;
DR WPI: 90-253802/33.
PT Human monocyte chemotactic factor type polypeptide and DNA
PT encoding it - useful as antibacterial and antitumour agents.
PS Claim 2; Page 25; 27pp; English.
CC The sequence was deduced from the DNA sequence determined from
CC three recombinant plasmids, pMHC7, pMHC725 and pMHC729 which
CC were isolated from a cDNA library prepd. from RNA extracted from
CC human promyelocytic leukaemia cell line, HL-60 (ATCC CCR-240).
CC vectors. In plasmids pMHC7 and pMHC729 bases 105 and 226 were
CC T and G resp. in pMHC725 they were C and A resp. The AA at posn.
CC 76 of the precursor protein is therefore not determined and may be
CC either Ala or Thr. The protein may be produced by recombinant
CC DNA techniques in E.coli. and is useful as a drug for treatment of
CC certain bacterial infections and cancers.
SQ Sequence 99 AA;
Query Match 92.1%; Score 93; DB 2; Length 99;
Best Local Similarity 91.7%; Pred. No. 1.00e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 73 eicxdkpkxwq 84
OY 1 EICDPRKQKWQ 12

RESULT 2
ID W13598 standard; peptide; 66 AA.
AC W13598;
DE 07-NOV-1997 (first entry)
DE Monocyte chemoattractant protein analogue MCP-1 (10-76).
KM Truncated monocyte chemoattractant protein-1; inhibitor;
KM receptor binding; anti inflammatory; basophil; lymphocyte;
KM chronic inflammatory disease; arthritis; arteriosclerosis;
KM lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PA (LEWIS/) LEWIS I.
PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Disclosure; Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (10-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-9 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 67 AA;
Query Match 89.1%; Score 90; DB 24; Length 67;
Best Local Similarity 91.7%; Pred. No. 2.12e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 41 eicadpkpkxwq 52

PR 19-JUN-1995; CA-152141.
PA (LEWIS/) LEWIS I.
PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Disclosure; Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (10-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-9 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 66 AA;
Query Match 89.1%; Score 90; DB 24; Length 66;
Best Local Similarity 91.7%; Pred. No. 2.12e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 40 eicadpkpkxwq 51
OY 1 EICDPRKQKWQ 12

RESULT 3
ID W13599 standard; peptide; 67 AA.
AC W13599;
DE 07-NOV-1997 (first entry)
DE Monocyte chemoattractant protein analogue MCP-1 (11-76).
KM Truncated monocyte chemoattractant protein-1; inhibitor;
KM receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
KM chronic inflammatory disease; arthritis; arteriosclerosis;
KM lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PA (LEWIS/) LEWIS I.
PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Disclosure; Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (11-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-10 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 67 AA;
Query Match 89.1%; Score 90; DB 24; Length 67;
Best Local Similarity 91.7%; Pred. No. 2.12e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

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Oy      1  EICLDPKOKRWQ 12
      ||| |||||
RESULT  4
ID      W13597 standard; peptide; 68 AA.
AC      W13597;
DT      07-NOV-1997 (first entry)
DE      Monocyte chemoattractant protein analogue MCP-1 (9-76).
KW      Truncated monocyte chemoattractant protein-1; inhibitor;
KW      receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
KW      chronic inflammatory disease; arthritis; arteriosclerosis;
KW      lung disease.
OS      Homo sapiens.
PN      CA2152141-A.
PD      20-DEC-1996.
PF      19-JUN-1995; 152141.
PR      19-JUN-1995; CA-152141.
PA      (LEWIS/) LEWIS I.
PI      Gong J, Lewis I.
PI      WPI; 97-155844/16.
PT      N-terminally truncated monocyte chemo:attractant protein-1 (MCP-1) -
PT      lacks MCP-1 activity and inhibits receptor binding. useful as
PT      anti-inflammatory agent
PS      Claim 7; Page 5; 27pp; English.
CC      The present sequence represents an analogue, MCP-1 (9-76), of monocyte
CC      chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC      N-terminal amino acids 1-8 of MCP-1, acts as an antagonist of MCP-1
CC      as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC      receptor. The analogue is useful as an anti-inflammatory agent to block
CC      the effects of MCP-1 which is an inflammatory mediator causing migration
CC      of monocytes and other cells e.g. basophils and lymphocytes into
CC      inflammation sites. MCP-1 has been implicated in allergic and chronic
CC      inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC      diseases. The analogue competes more effectively with MCP-1 for binding
CC      MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC      providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC      with 75:1 for prior art mutant 7ND.
SQ      Sequence 68 AA;

Query Match      89.1%; Score 90; DB 24; Length 68;
Best Local Similarity 91.7%; Pred. No. 2,12e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db      42  eicadpdkqkwg 53
      ||| |||||
Oy      1  EICLDPKOKRWQ 12

RESULT  5
ID      R87678 standard; protein; 69 AA.
AC      R87678;
DT      21-FEB-1996 (first entry)
DE      des(2-8) MCP-1.
KW      monocyte chemoattractant protein; MCP-1; mutant; restenosis;
KW      angioplasty.
OS      Homo sapiens.
PI      Key
PI      modified_site
PI      Location/Qualifiers
FT      2..3
FT      /note="amino acids 2-8 of the native protein have
FT      been deleted between these residues"
FT      4..29
FT      disulfide_bond
FT      disulfide_bond 5..45
PN      W09513295-A1.
PD      18-MAY-1995.
PR      07-NOV-1994; U12874.
PR      12-NOV-1993; US-152301.
PA      (DAND ) DANA FARBER CANCER INST INC.
PI      Rollins B, Zhang YJ;
PI      WPI; 95-215051/28.
PT      Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
PT      capable of inhibiting the monocyte chemo-attractant activity of
PT      endogenous MCP-1 and can be used to treat restenosis
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PS      Claim 4; Page 11; 22pp; English.
CC      Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
CC      that they inhibit the monocyte chemoattractant activity of endogenous
CC      MCP-1, provided that the derivative has not been modified by the
CC      substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
CC      are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg
CC      by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
CC      acids 2-8. The present sequence is a specifically claimed human MCP-1
CC      derivative based on the parent protein disclosed in Rollins, Molecular
CC      and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC      The peptides can be used to prevent restenosis, e.g. in patients
CC      undergoing coronary artery angioplasty.
SQ      Sequence 69 AA;

Query Match      89.1%; Score 90; DB 14; Length 69;
Best Local Similarity 91.7%; Pred. No. 2,12e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db      43  eicadpdkqkwg 54
      ||| |||||
Oy      1  EICLDPKOKRWQ 12

RESULT  6
ID      W13596 standard; peptide; 69 AA.
AC      W13596;
DT      07-NOV-1997 (first entry)
DE      Monocyte chemoattractant protein analogue MCP-1 (8-76).
KW      Truncated monocyte chemoattractant protein-1; inhibitor;
KW      receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
KW      chronic inflammatory disease; arthritis; arteriosclerosis;
KW      lung disease.
OS      Homo sapiens.
PN      CA2152141-A.
PD      20-DEC-1996.
PR      19-JUN-1995; 152141.
PR      19-JUN-1995; CA-152141.
PA      (LEWIS/) LEWIS I.
PI      Gong J, Lewis I.
PI      WPI; 97-165844/16.
PT      N-terminally truncated monocyte chemo:attractant protein-1 (MCP-1) -
PT      lacks MCP-1 activity and inhibits receptor binding. useful as
PT      anti-inflammatory agent
PS      Claim 5; Page 5; 27pp; English.
CC      The present sequence represents an analogue, MCP-1 (8-76), of monocyte
CC      chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC      N-terminal amino acids 1-7 of MCP-1, acts as an antagonist of MCP-1
CC      as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC      receptor. The analogue is useful as an anti-inflammatory agent to block
CC      the effects of MCP-1 which is an inflammatory mediator causing migration
CC      of monocytes and other cells e.g. basophils and lymphocytes into
CC      inflammation sites. MCP-1 has been implicated in allergic and chronic
CC      inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC      diseases. The analogue competes more effectively with MCP-1 for binding
CC      MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC      providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC      with 75:1 for prior art mutant 7ND.
SQ      Sequence 69 AA;

Query Match      89.1%; Score 90; DB 24; Length 69;
Best Local Similarity 91.7%; Pred. No. 2,12e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db      43  eicadpdkqkwg 54
      ||| |||||
Oy      1  EICLDPKOKRWQ 12

RESULT  7
ID      W09374 standard; Protein; 76 AA.
AC      W09374;
DT      21-MAR-1997 (first entry)
DE      Monocyte chemotactic protein 1.
```

KW Human: monocyte chemoattractant protein; antisense; inhibition;
KM mononuclear cell; lymphocyte; macrophage; smooth muscle cell;
KW vascular restenosis.
OS Homo sapiens.
FH Key Location/Qualifiers
FT misc_difference 1
FT misc_difference 51 /note= "encoded by codon CAG"
FT misc_difference 65 /note= "encoded by codon AUG"
FT misc_difference 65 /note= "encoded by codon CAC"
PN US5571713-A.
PD 05-NOV-1996.
PE 22-OCT-1992; 965678.
PR 22-OCT-1992; US-865678.
PR 27-MAY-1994; US-250958.
PA (UMMI) UNIV MICHIGAN.
PI Kunkel SL, Lyle LR, Strieter RM;
DR WPI: 96-505405/50.
DR N-PSDB: T48092.
PT Anti-sense Monocyte Chemoattractant Protein-1 oligo:nucleotide(s) -
PT useful for therapy or diagnosis of restenosis, etc.
PS Disclosure: Column 13-14; 16pp; English.
CC This is the amino acid sequence of the human monocyte chemoattractant
CC protein (MCP)-1, a member of the C-C chemokine family. MCP-1 is a potent
CC stimulator of monocyte chemotaxis and is produced by injured vascular
CC smooth cells thus attracting monocytes and macrophages which infiltrate
CC the injured area and release growth factor. This causes proliferation of
CC the vascular smooth cells resulting in restenosis. The gene sequence can
CC be used to generate antisense sequences e.g. T48093-7, which can be used
CC to inhibit in vitro MCP-1 prodn. by mononuclear cells e.g. lymphocytes or
CC macrophages, or smooth muscle cells, esp. in order to prevent vascular
CC restenosis.
SQ Sequence 76 AA:
Query Match 89.1%; Score 90; DB 20; Length 76;
Best Local Similarity 91.7%; Pred. No. 2.12e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db 50 eicadpkqkvwg 61
||| |||||||
QY 1 EICDPPKQKRWQ 12
RESULT 8
ID P90292 standard; peptide; 76 AA.
AC P90292.
DE 17-JAN-1990 (first entry)
DT Peptide from human glioma cell line U-105MG.
KW Glioma; leucocyte; chemotaxis; neoplasms.
OS Human.
FH Key Location/Qualifiers
FT modified_site 1
FT modified_site 1 /label= OTHER
FT /note= "pyroglutamic acid"
PN US7304234-A.
PD 20-JUL-1989.
PE 31-JAN-1989; 030423.
PR 31-JAN-1989; US-304234.
PA (USSH) US Dept. of Health and Human.
PI Yoshimura T; Robinson E; Appella E; Leonard E.
DR WPI: 89-263501/36.
PT New peptide with specific chemotactic activity for monocytes - isolated
PT from glioma or leucocyte cells, useful for treating infections and
PI neoplasms.
PS Disclosure: page 3; 46pp; English.
CC Peptide is derived from glioma cell line U-105MG (ATCC CRL9932) or from
CC leukocytes and has mol. wt. 8400. Used to treat infections and neoplasms.
SQ Sequence 76 AA:
Query Match 89.1%; Score 90; DB 1; Length 76;
Best Local Similarity 91.7%; Pred. No. 2.12e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 50 eicadpkqkvwg 61
||| |||||||
QY 1 EICDPPKQKRWQ 12
RESULT 9
ID R87675 standard; protein; 76 AA.
AC R87675;
DT 21-FEB-1996 (first entry)
DE (28-ASP) MCP-1.
KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
KW angioplasty.
OS Homo sapiens.
FH Key Location/Qualifiers
FT modified_site 28
FT modified_site 28 /note= "Tyr in the native sequence is replaced by Asp"
FT disulfide_bond 11..36
FT disulfide_bond 12..52
PN W09513295-A1.
PD 18-MAY-1995.
PE 07-NOV-1994; U12874.
PR 12-NOV-1993; US-152301.
PA (DAND) DANA FARBER CANCER INST INC.
PI Rollins B, Zhang YJ;
DR WPI: 95-215051/28.
PT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
PT capable of inhibiting the monocyte chemo-attractant activity of
PT endogenous MCP-1 and can be used to treat restenosis
PS Claim 3; Page 11; 22pp; English.
CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
CC that they inhibit the monocyte chemoattractant activity of endogenous
CC MCP-1, provided that the derivative has not been modified by the
CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
CC are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg
CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
CC acids 2-8. The present sequence is a specifically claimed human MCP-1
CC derivative based on the parent protein disclosed in Rollins, Molecular
CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC The peptides can be used to prevent restenosis, e.g. in patients
CC undergoing coronary artery angioplasty.
SQ Sequence 76 AA:
Query Match 89.1%; Score 90; DB 14; Length 76;
Best Local Similarity 91.7%; Pred. No. 2.12e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db 50 eicadpkqkvwg 61
||| |||||||
QY 1 EICDPPKQKRWQ 12
RESULT 10
ID R53398 standard; Protein; 76 AA.
AC R53398;
DT 15-DEC-1994 (first entry)
DE Sense MCP-1.
KW Antisense; RNA; DNA; monocyte chemotactic protein-1; MCP-1;
KW radionuclide; vascular restenosis; alpha; beta; emitting isotope;
KW diagnosis; monocytes; vascular injury.
OS Mammalian.
FH Key Location/Qualifiers
FT misc_difference 1
FT misc_difference 1 /note= "Unspecified amino acid"
PN W09409128-A.
PD 28-APR-1994.
PE 20-OCT-1993; U10074.
PR 22-OCT-1992; US-965678.
PA (MNCW) MALLINCKRODT MEDICAL INC.
PI Lyle LR;
DR WPI: 94-151314/18.
PT Anti-sense monocyte chemoattractant protein-1 oligo:nucleotide(s) and
PT peptide(s) - is used for inhibiting, treating or imaging areas of

PT vascular restenosis or potential restenosis
PS Disclosure: Page 5; 42pp; English.
CC The sequences given in R3398-99 represent sense and antisense
CC monocytic chemotactic protein-1 (MCP-1) respectively. These
CC oligonucleotides may be labelled with a radionuclide and use
CC therapeutically for the treatment of vascular restenosis.
CC Radiolabelled antisense MCP-1 compounds may be constructed using high
CC energy alpha or beta emitting isotopes rather than the gamma
CC emitters customarily used for diagnostic purposes. Antisense MCP-1
CC compounds inactivate MCP-1 or inhibit production of MCP-1 so that
CC monocytes are not attracted to the area of vascular injury and
CC proliferation of vascular cells is inhibited.
SQ Sequence 76 AA:
Query Match 89.1%; Score 90; DB 10; Length 76;
Best Local Similarity 91.7%; Pred. No. 2.12e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db 50 elcadpkkxwq 61
||| |||||
QY 1 EICDPRKQKWQ 12
RESULT 11
AC R87676 standard; protein; 76 AA.
DE 21-FEB-1996 (first entry)
DE (24-Arg) MCP-1.
KW monocytic chemoattractant protein; MCP-1; mutant; restenosis;
KW angioplasty.
OS Homo sapiens.
FH Key Location/Qualifiers
FT modified_site 24
FT /note= "Arg in the native sequence is replaced by Phe"
FT disulfide_bond 11..36
FT disulfide_bond 12..52
PN W09513295-A1.
PD 18-MAY-1995.
PF 07-NOV-1994; U12874.
PR 12-NOV-1993; US-152301.
PA (DAND) DANA FARBER CANCER INST INC.
PI Rollins B, Zhang YJ;
DR WPI: 95-215051/28.
PT Human monocytic chemo-attractant protein-1 (MCP-1) derivs. - are
PT capable of inhibiting the monocytic chemo-attractant activity of
PT endogenous MCP-1 and can be used to treat restenosis
PS Claim 5; Page 11; 22pp; English.
CC Monocytic chemoattractant protein-1 (MCP-1) derivatives are mutated such
CC that they inhibit the monocytic chemoattractant activity of endogenous
CC MCP-1, provided that the derivative has not been modified by the
CC substitution of 28-tyr by leu and/or 30-Arg by Val. Preferred mutations
CC are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg
CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
CC acids 2-8. The present sequence is a specifically claimed human MCP-1
CC derivative based on the parent protein disclosed in Rollins, Molecular
CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC The peptides can be used to prevent restenosis, e.g. in patients
CC undergoing coronary artery angioplasty.
SQ Sequence 76 AA:
Query Match 89.1%; Score 90; DB 14; Length 76;
Best Local Similarity 91.7%; Pred. No. 2.12e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db 50 elcadpkkxwq 61
||| |||||
QY 1 EICDPRKQKWQ 12
RESULT 12
AC R28660 standard; Protein; 76 AA.
AC R28660;
DT 24-MAR-1993 (first entry)

DE MCF.
KW Plasmid; monocytic chemotactic factor; MCF; translation;
KW termination; terminator; initiation; ribosome binding site;
KW RBS; promoter; tryptophan; repressor.
OS Synthetic.
PN W09219737-A.
PD 12-NOV-1992.
PF 27-APR-1992; J00550.
PR 09-MAY-1991; JP-135950.
PA (DAIN) DAINIPPON PHARM CO LTD.
PI Fukui T, Matsuo N, Yamada M, Yamagishi J;
DR WPI: 92-398864/48.
DR N-PSDB: Q30745-46.
FT Prodn. of polypeptide(s) having monocytic chemotactic activity -
FT using expression plasmids with E. coli elements and specific
PT E. coli strains
PS Claim 1; Page 48 + Page 36; 56pp; English.
CC An expression plasmid, pHM483, for producing MCF(76) consisting
CC of 76 amino acids was constructed. The prod. can be used for e.g.
CC treating bacterial infectious diseases.
SQ Sequence 76 AA:
Query Match 89.1%; Score 90; DB 5; Length 76;
Best Local Similarity 91.7%; Pred. No. 2.12e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db 50 elcadpkkxwq 61
||| |||||
QY 1 EICDPRKQKWQ 12
RESULT 13
ID R87677 standard; protein; 76 AA.
AC R87677;
DE 21-FEB-1996 (first entry)
DE (3-Ala) MCP-1.
KW monocytic chemoattractant protein; MCP-1; mutant; restenosis;
KW angioplasty.
OS Homo sapiens.
FH Key Location/Qualifiers
FT modified_site 3
FT /note= "Asp in the native sequence is replaced by Ala"
FT disulfide_bond 11..36
FT disulfide_bond 12..52
PN W09513295-A1.
PD 18-MAY-1995.
PF 07-NOV-1994; U12874.
PR 12-NOV-1993; US-152301.
PA (DAND) DANA FARBER CANCER INST INC.
PI Rollins B, Zhang YJ;
DR WPI: 95-215051/28.
PT Human monocytic chemo-attractant protein-1 (MCP-1) derivs. - are
PT capable of inhibiting the monocytic chemo-attractant activity of
PT endogenous MCP-1 and can be used to treat restenosis
PS Claim 6; Page 11; 22pp; English.
CC Monocytic chemoattractant protein-1 (MCP-1) derivatives are mutated such
CC that they inhibit the monocytic chemoattractant activity of endogenous
CC MCP-1, provided that the derivative has not been modified by the
CC substitution of 28-tyr by leu and/or 30-Arg by Val. Preferred mutations
CC are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg
CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
CC acids 2-8. The present sequence is a specifically claimed human MCP-1
CC derivative based on the parent protein disclosed in Rollins, Molecular
CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC The peptides can be used to prevent restenosis, e.g. in patients
CC undergoing coronary artery angioplasty.
SQ Sequence 76 AA:
Query Match 89.1%; Score 90; DB 14; Length 76;
Best Local Similarity 91.7%; Pred. No. 2.12e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db 50 elcadpkkxwq 61

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QY      1 EICLDPKQKRWQ 12

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RESULT  14
ID      R87680 standard; protein; 76 AA.
AC      R87680;
DT      05-MAR-1996 (first entry)
DE      Monocyte chemotactic activating factor for use as wound remedy.
KW      monocyte chemotactic activating factor; MCAF; wound remedy.
OS      Homo sapiens.
PN      WO9507710-A1.
PD      23-MAR-1995.
PE      13-SEP-1994; JP-227385.
PR      (TORA ) TORAY IND INC.
PI      Matsushima K, Naruto M;
        WPI; 95-131181/17.
PT      Wound treatment using monocyte chemotactic factor - has potent
PS      therapeutic effect on skin wounds and ulcers
CC      Disclosure; Page 12; 22pp; Japanese.
CC      The invention relates to a new remedy for curing wounds which, instead
CC      of comprising a growth factor, comprises a monocyte chemotactic
CC      activating factor (MCAF) or its variants or derivatives. The factor has
CC      potent effect on skin wounds and ulcers. The present sequence is human
CC      MCAF. The activity of which is exemplified as the new remedy.
SQ      Sequence 76 AA;

Query Match
Best Local Similarity 91.7%; Score 90; DB 15; Length 76;
        Pred. No. 2,12e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db      50 elcadpkkqkvq 61
      ||| |||||
QY      1 EICLDPKQKRWQ 12

RESULT  15
ID      W11131 standard; protein; 76 AA.
AC      W11131;
DT      10-JUN-1997 (first entry)
DE      Mature human monocyte chemoattractant protein-1 (MCP-1).
KW      MCP-1; mature chemoattractant protein-1; cytokine; interleukin-8;
        IL-8; neutrophil activating peptide; labelling; imaging; targeting;
        radionuclide; infection; inflammation; neoplasm; atheromatous lesion;
        restenosis.
OS      Homo sapiens.
PN      Homo sapiens.
PI      Key
        Location/Qualifiers
FT      misc_difference 1
        /note= "X= any amino acid"
FT      US5605671-A.
PN      25-FEB-1997.
PE      05-OCT-1992; 956862.
PR      05-OCT-1992; US-956863.
PR      05-OCT-1992; US-956862.
PR      29-APR-1994; US-235659.
PA      (MCM ) MALLINCKRODT MEDICAL INC.
PI      (UNM ) UNIV MICHIGAN.
PI      Kunkel SL, Lyte LR, Strieter RM;
        WPI; 97-153541/14.
PT      Radio:labelling neutrophil-activating peptide(s) - for imaging
PS      targeted delivery of radioactive agent
CC      Example 10: Column 19-20; 15pp; English.
CC      W11131 represents mature human monocyte chemoattractant protein-1
CC      (MCP-1). MCP-1 was radionuclide labelled and used in a method for
CC      imaging a target site in vivo in an animal. Labelled MCP-1 was allowed
CC      to accumulate at a target site (having MCP-1 receptors) in the animal
CC      and detected so as to image the target site. Any Cys-Cys or Cys-Xaa-Cys
CC      chemokine carrying either iodine-123 or iodine-131 can be used in the
CC      method. Especially preferred is neutrophil activating peptide-2 (NAP-2)
CC      which recognises interleukin-8 receptors and is labelled with
CC      technetium-99m, indium-111, copper-62, rhenium-186 or rhenium-188.
CC      The method can be used for imaging a site of infection, inflammation,

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CC      neoplasm, atheromatous lesion or restenosis.
SQ      Sequence 76 AA;

Query Match
Best Local Similarity 91.7%; Score 90; DB 21; Length 76;
        Pred. No. 2,12e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db      50 elcadpkkqkvq 61
      ||| |||||
QY      1 EICLDPKQKRWQ 12

RESULT  16
ID      R86859 standard; Protein; 77 AA.
AC      R86859;
DT      20-MAR-1996 (first entry)
DE      Mature MCP-1.
KW      Antisense; monocyte chemotactic protein-1; MCP-1;
        "C-C" family; chemoattractant cytokine; chemokine; stimulation;
        monocyte; chemotaxis; vascular smooth muscle cell; macrophage;
        proliferation; restenosis; balloon angioplasty.
OS      Homo sapiens.
PN      WO9519167-A1.
PD      20-JUL-1995.
PE      13-JAN-1995; U00605.
PR      14-JAN-1994; US-182917.
PA      (MCM ) MALLINCKRODT MEDICAL INC.
PI      Lyte LR, Thomas-Miller B;
        WPI; 95-263703/34.
DR      N-PSDB; T03528.
PT      New anti-sense oligo:nucleotide(s) and peptide(s) for inhibiting
PT      restenosis - are directed against C-C family cytokine(s) such as
PT      monocyte chemotactic protein, opt. radio:labelled for therapy or
PS      imaging
PS      Disclosure; Page 5; 50pp; English.
CC      This sequence represents the mature form of monocyte chemotactic
CC      protein-1 (MCP-1). MCP-1 is a member of the "C-C" family of
CC      chemoattractant cytokines or chemokines. It is a potent stimulator
CC      of monocyte chemotaxis and has an extremely high degree of specificity
CC      for this cell type. MCP-1 is produced by injured vascular smooth muscle
CC      cells and attracts the monocytes and macrophages which infiltrate the
CC      area, releasing growth factors and resulting in proliferation of vascular
CC      smooth muscle and restenosis. Nucleic acid molecules which are antisense
CC      to the MCP-1 mRNA may be used to inhibit translation of MCP-1 and so may
CC      be useful for inhibiting vascular restenosis, partic. following balloon
CC      angioplasty or a related process. The molecule may be radiolabelled to
CC      increase its therapeutic effect or for imaging areas of potential
CC      restenosis.
SQ      Sequence 77 AA;

Query Match
Best Local Similarity 91.7%; Score 90; DB 15; Length 77;
        Pred. No. 2,12e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db      51 elcadpkkqkvq 62
      ||| |||||
QY      1 EICLDPKQKRWQ 12

RESULT  17
ID      R73914 standard; protein; 99 AA.
AC      R73914;
DT      05-DEC-1995 (first entry)
DE      Human monocyte chemoattractant factor hMCP-1.
KW      Human monocyte chemoattractant factor; hMCP-1; chemokine; vaccine;
        meningitis related homologous antigenic sequence; MRHAS; RV-1;
        immunosassay; diagnosis; treatment; prophylactic; bacterial;
        viral.
OS      Homo sapiens.
PN      WO9509232-A.
PD      06-APR-1995.
PE      28-SEP-1994; CA0516.
PR      28-SEP-1993; US-127499.

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PA (SHAR) SHARMA L R.
 PA (VALS/) VAN ALSTYNE D.
 PI Sharma LR, Van Alstyne D;
 DR WPI: 95-14743/19.
 PI New peptide(s) and corresp. antibodies for the treatment of
 PI meningitis - the peptide(s) corresp. to homologous antigenic
 PI sites on bacterial and viral agents and on chemokine(s), used for
 PI detecting and preventing meningitis
 PS Claim 47; Fig 8/10; 98pp; English.
 CC R73914 is the chemokine Human monocyte chemoattractant factor hMCP-1.
 CC It contains the meningitis related antigenic sequences (MRHAs) claimed
 CC in R73895 and R73907, which are recognised by a monoclonal antibody
 CC from the hybridoma Rubella virus (RV)1. The claimed MRHAs peptides
 CC may be used in immunoassays to diagnose the presence of bacterial
 CC and/or viral meningitis agents in a sample, or in prophylactic and
 CC therapeutic meningitis treatments. The peptides may also be used as
 CC vaccines against meningitis.
 CC NB: Identified by matching corresponding MRHAs peptides.
 SQ Sequence 99 AA;

Query Match 89.1%; Score 90; DB 14; Length 99;
 Best Local Similarity 91.7%; Pred. No. 2.12e-02;
 Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

DB 73 elcaddpkqkvq 84
 ||| |||||
 QY 1 EICLDPKQKRWQ 12

RESULT 18
 ID R70800 standard; Protein: 99 AA.

AC R70800: 1995 (first entry)
 DT 29-AUG-1995
 DE Chemoattractant protein MCP-1.
 KM MCP-1; chemoattractant; heparinase; heparin; heparan sulfate;
 KW arthritis; restenosis; cancer; wound healing.
 OS Homo sapiens.
 PN WO9504158-A.
 PD 09-FEB-1995.
 PF 26-JUL-1994; 008207.
 PR 29-JUL-1993; US-099866.
 PR 13-OCT-1993; US-136117.
 PA (UNPO) UNPOH CO.
 PI Hoogwerf AJ, Ledbetter SR;
 DR WPI: 95-082239/11.
 DR N-PSDB: Q85370.
 PT Screening for cpds. with anti-heparinase activity - by detecting
 PT inhibition of heparin or heparan sulphate degradation,
 PT potentially useful for treating arthritis, restenosis, cancer.
 PS Claim 13; Page 45; 60pp; English.
 CC Purified heparinases, prepared under reducing conditions and
 CC activated with transglutaminase, are given in R70786-804. Most
 CC are prepared by reverse transcription of mRNA from activated human
 CC leukocytes, then cloning of the cDNA into pVL1392 baculovirus
 CC vector, and expression in Sf9 cells in the presence of reduced
 CC glutathione and dithiothreitol.
 SQ Sequence 99 AA;

Query Match 89.1%; Score 90; DB 13; Length 99;
 Best Local Similarity 91.7%; Pred. No. 2.12e-02;
 Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

DB 73 elcaddpkqkvq 84
 ||| |||||
 QY 1 EICLDPKQKRWQ 12

RESULT 19
 ID P95387 standard; Protein: 99 AA.
 AC P95387;
 DT 25-JUL-1989 (first entry)
 KW Human monocyte chemo-attractant peptide-1.
 KW Human monocyte chemo-attractant peptide; inflammatory disease; neoplasms.

OS Homo sapiens.
 FH Key Location/Qualifiers
 FT protein 24..99
 FT /product=MCP-1
 PN US7330446-A.
 PD 25-JUL-1989;
 PR 30-MAR-1988; 330446.
 PR 30-MAR-1989; US-330446.
 PA (USSH) US Dept. Health and Human.
 PI Yoshimura T, Robinson EA, Appella E, Leonard EJ;
 DR WPI: 89-300683/41.
 DR N-PSDB: N91337.
 PT Human derived monocyte chemo-attractant peptide prods. - obt'd. from human
 PT glioma cell line U-103MG or peripheral blood mononuclear leukocytes.
 PS Disclosure; fig 2; 66pp; English.
 CC This is a human-derived monocyte chemo-attractant peptide (MCP-1) sequence
 CC MCP-1 exhibits optimal chemotactic activity at a concn. of 1nM and has a
 CC mol. mass of c.a. 8,400 D. MCP-1 can be used for treating infection eg
 CC inflammatory disease, or for the control of neoplasms by accumulation of
 CC monocytes at the site of the infection. The corresp. DNA is obt'd. by
 CC chemical synthesis, by screening reverse transcripts of mRNA from
 CC purified blood leukocytes or cell cultures of eg U-373 MG or KMG-5.
 SQ Sequence 99 AA;

Query Match 89.1%; Score 90; DB 2; Length 99;
 Best Local Similarity 91.7%; Pred. No. 2.12e-02;
 Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

DB 73 elcaddpkqkvq 84
 ||| |||||
 QY 1 EICLDPKQKRWQ 12

RESULT 20
 ID R28663 standard; Protein: 99 AA.
 AC R28663;
 DT 24-MAR-1993 (first entry)
 DE MCF.
 KM Plasmid; monocyte chemotactic factor; MCF; translation;
 KW termination; terminator; initiation; ribosome binding site;
 KW RBS; promoter; tryptophan; repressor.
 OS Synthetic.
 FH Key Location/Qualifiers
 FT peptide 1..23
 FT /label= sig_peptide
 FT protein 24..99
 FT /label= mat_protein
 PN WO9219737-A.
 PD 12-NOV-1992.
 PF 27-APR-1992; J00550.
 PR 09-MAY-1991; JP-135950.
 PA (DAIN) DAINIPPON PHARM CO LTD.
 PI Fukui T, Matsuo N, Yamada M, Yamagishi J;
 DR WPI: 92-398864/48.
 DR N-PSDB: Q30748.
 PT Prodn. of polypeptide(s) having monocyte chemotactic activity -
 PT using expression plasmids with E. coli elements and specific
 PT E.coli strains
 PS Disclosure; Page 43-44; 56pp; English.
 CC An expression plasmid, pMCO76 for producing MCF(76) consisting
 CC of 76 amino acids was constructed. DNA encoding MCF(76) was
 CC prep'd. using a recombinant plasmid pMCF7.
 SQ Sequence 99 AA;

Query Match 89.1%; Score 90; DB 5; Length 99;
 Best Local Similarity 91.7%; Pred. No. 2.12e-02;
 Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

DB 73 elcaddpkqkvq 84
 ||| |||||
 QY 1 EICLDPKQKRWQ 12

RESULT 21
ID R20237 standard; protein; 29 AA.
AC R20237;
U1 01-MAY-1992 (first entry)
DE NAF(44-72) peptide inhibitor of neutrophil activating factor.
KW bronchitis; neutrophil chemotaxis; ARDS.
OS Synthetic.
PN US5079228-A.
PD 07-JAN-1992.
PF 05-FEB-1990; 475658.
PR 05-FEB-1990; US-475658.
PA (TEXA) UNIV OF TEXAS SYST.
PI Cohen AB, Miller EJ, Nagao S, Carr FK;
DR WPI: 92-041038/05.
PT New peptide inhibitors of neutrophil activating factor - which
PT inhibit chemotaxis, for treating adult respiratory distress
PT syndrome and other inflammatory lesions caused by NAF
PS Claim 8; Column 9; 11pp; English.
CC NAF(44-72) is a preferred peptide derived from NAF which is
CC antagonistic to NAF and has no chemotactic activity. It inhibited
CC NAF-induced migration by 34 per cent. When used with a second
CC preferred peptide, i.e. NAF(3-25) (see R20236) inhibition was 70
CC per cent.
SQ Sequence 29 AA;
Query Match 85.1%; Score 86; DB 4; Length 29;
Best Local Similarity 75.0%; Pred. No. 5.71e-02;
Matches 9; Conservative 3; Mismatches 0; Indels 0; Gaps 0;
Db 5 elcldpkenwq 16
1:|||||:
Qy 1 EICLDPKQKWQ 12
RESULT 22
ID W04515 standard; peptide; 39 AA.
AC W04515;
DT 30-JUL-1997 (first entry)
DE Interleukin-8(34-72) used in novel synthesis method.
KW Thioester; synthesis; ligation; catalysis; thiol; condensation;
KW link; beta-aminothioester; bond; amide; production; disulphide;
KW refolding; oxidation; interleukin 8; IL-8.
OS Synthetic.
PN W09634878-A1.
PD 07-NOV-1996.
PF 04-MAY-1995; U05668.
PR 04-MAY-1995; WO-005668.
PA (SCRI) SCRIPPS RES INST.
PI Dawson PE, Kent SBH, Muir TW;
DR WPI: 96-506095/50.
PT Synthesis of protein by chemical ligation of unprotected peptide(s)
PT - by reaction of N-terminal Cys with C-terminal thioester and
PT spontaneous rearrangement of intermediate prod.
PS Example 3; Page 47; 61pp; English.
CC The present peptide, which has an amino-terminal cysteine residue,
CC was used in a novel synthesis method, comprising the ligation of a
CC 1st oligopeptide (OP) to a 2nd OP, end to end, to produce an OP
CC product. This comprises mixing the 1st and 2nd OP (which have a
CC carboxy-terminal thioester and an amino-terminal Cys with an
CC unoxidised SH side chain) in a solution containing a catalytic
CC thiol, condensing the terminal groups to form an intermediate OP,
CC in which components are linked by a beta-aminothioester bond and
CC rearranging the bond to give a product OP linked by an amide bond.
CC The method can be used for the production of full length proteins,
CC which can be made into native, disulphide containing proteins by
CC refolding and oxidation. The method also combines chemoselective,
CC unprotected, peptide reactions, with native peptide bond formation,
CC increasing the size of protein that can be made by chemical
CC synthesis.
SQ Sequence 39 AA;
Query Match 85.1%; Score 86; DB 22; Length 39;
Best Local Similarity 75.0%; Pred. No. 5.71e-02;

Matches 9; Conservative 3; Mismatches 0; Indels 0; Gaps 0;
Db 15 elcldpkenwq 26
1:|||||:
Qy 1 EICLDPKQKWQ 12
RESULT 23
ID R38087 standard; protein; 67 AA.
AC R38087;
DT 13-OCT-1993 (first entry)
DE Modified human interleukin-8 analogue (3-69).
KW Analogues; modified; neutrophil activators; antagonists; human;
KW competitive antagonist; IL-8; inflammation; treatment; chemotaxis;
KW activity; stimulation; inflammatory response.
OS Synthetic.
PN W09311159-A.
PD 10-JUN-1993.
PF 03-DEC-1992; CA0528.
PR 04-DEC-1991; US-801578.
PA (BIOM-) BIOMEDICAL RES CENT LTD.
PI Clark-Lewis I, Moser B;
DR WPI: 93-196997/24.
PT New interleukin-8 analogues modified in specified region - used as
PT neutrophil activators or for blocking effect of IL-8 on neutrophil(s)
PT for treatment of inflammation
PS Claim 23; Page 30; 47pp; English.
CC The sequence is that of an analogue of interleukin-8 (IL-8) comprising
CC IL-8 residues 3-69. It is able to bind neutrophils and act as a
CC competitive antagonist of IL-8, i.e. it can be used to treat
CC inflammation, e.g. by intravenous injection or oral admin. It can
CC act as a neutrophil activator and so can be used to stimulate an
CC inflammatory response.
SQ Sequence 67 AA;
Query Match 85.1%; Score 86; DB 7; Length 67;
Best Local Similarity 75.0%; Pred. No. 5.71e-02;
Matches 9; Conservative 3; Mismatches 0; Indels 0; Gaps 0;
Db 46 elcldpkenwq 57
1:|||||:
Qy 1 EICLDPKQKWQ 12
RESULT 24
ID R38086 standard; protein; 67 AA.
AC R38086;
DT 13-OCT-1993 (first entry)
DE Modified human interleukin-8 analogue (6-72).
KW Analogues; modified; neutrophil activators; antagonists; human;
KW competitive antagonist; IL-8; inflammation; treatment; chemotaxis;
KW activity; stimulation; inflammatory response.
OS Synthetic.
PN W09311159-A.
PD 10-JUN-1993.
PF 03-DEC-1992; CA0528.
PR 04-DEC-1991; US-801578.
PA (BIOM-) BIOMEDICAL RES CENT LTD.
PI Clark-Lewis I, Moser B;
DR WPI: 93-196997/24.
PT New interleukin-8 analogues modified in specified region - used as
PT neutrophil activators or for blocking effect of IL-8 on neutrophil(s)
PT for treatment of inflammation
PS Claim 19; Page 29; 47pp; English.
CC The sequence is that of an analogue of interleukin-8 (IL-8) comprising
CC IL-8 residues 6-72. It is able to bind neutrophils and act as a
CC competitive antagonist of IL-8, i.e. it can be used to treat
CC inflammation, e.g. by intravenous injection or oral admin. It can
CC act as a neutrophil activator and so can be used to stimulate an
CC inflammatory response.
SQ Sequence 67 AA;
Query Match 85.1%; Score 86; DB 7; Length 67;

Best Local Similarity 75.0%; Pred. No. 5.71e-02;
Matches 9; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 43 elcldpkenwq 54
1 EICLDPKQKWQ 12

RESULT 25
ID R38083 standard; protein; 68 AA.

AC R38083;
DE 13-OCT-1993 (first entry)
DE Modified human interleukin-8 analogue (5-72).
KW Analogues; modified; neutrophil activators; antagonists; human;
KW competitive antagonist; IL-8; inflammation; treatment; chemotaxis;
KW activity; stimulation; inflammatory response.
OS Synthetic.

PN W0931159-A.
PD 10-JUN-1993.
PF 03-DEC-1992; CA0528.
PR 04-DEC-1991; US-801578.
PA (BIOM-) BIOMEDICAL RES CENT LTD.
PI Clark-Lewis I, Moser B;
DR WPI: 93-196997/24.

PT New interleukin-8 analogues modified in specified region - used as
PT neutrophil activators or for blocking effect of IL-8 on neutrophil(s)
PT for treatment of inflammation

PS Claim 17; Page 29; 47pp; English.
CC The sequence is that of an analogue of interleukin-8 (IL-8) comprising
CC IL-8 residues 5-72. It is able to bind neutrophils and act as a
CC competitive antagonist of IL-8, i.e. it can be used to treat
CC inflammation, e.g. by intravenous injection or oral admin. It can
CC act as a neutrophil activator and so can be used to stimulate an
CC inflammatory response. It also has strong chemotaxis activity and
CC can be used to attract neutrophils to a diseased area.
SQ Sequence 68 AA;

Query Match 85.1%; Score 86; DB 7; Length 68;
Best Local Similarity 75.0%; Pred. No. 5.71e-02;
Matches 9; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 44 elcldpkenwq 55
1 EICLDPKQKWQ 12

RESULT 26
ID R38083 standard; protein; 68 AA.

AC R38083;
DE 13-OCT-1993 (first entry)
DE Modified human interleukin-8 analogue 11e5 (6-72).
KW Analogues; modified; neutrophil activators; antagonists; human;
KW competitive antagonist; IL-8; inflammation; treatment; chemotaxis;
KW activity; stimulation; inflammatory response.
OS Synthetic.

FH Key location/Qualifiers
FT region 1 /note= "Leu5 -> Ile"
PN W0931159-A.
PD 10-JUN-1993.
PF 03-DEC-1992; CA0528.
PR 04-DEC-1991; US-801578.
PA (BIOM-) BIOMEDICAL RES CENT LTD.
PI Clark-Lewis I, Moser B;
DR WPI: 93-196997/24.

PT New interleukin-8 analogues modified in specified region - used as
PT neutrophil activators or for blocking effect of IL-8 on neutrophil(s)
PT for treatment of inflammation

PS Claim 15; Page 29; 47pp; English.
CC The sequence is that of an analogue of interleukin-8 (IL-8) comprising
CC IL-8 residues 11e5 (6-72). It is able to bind neutrophils and act
CC as a competitive antagonist of IL-8, i.e. it can be used to treat
CC inflammation, e.g. by intravenous injection or oral admin. It can

CC act as a neutrophil activator and so can be used to stimulate an
CC inflammatory response.
SQ Sequence 68 AA;

Query Match 85.1%; Score 86; DB 7; Length 68;
Best Local Similarity 75.0%; Pred. No. 5.71e-02;
Matches 9; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 44 elcldpkenwq 55
1 EICLDPKQKWQ 12

RESULT 27
ID R38084 standard; protein; 68 AA.

AC R38084;
DE 13-OCT-1993 (first entry)
DE Modified human interleukin-8 analogue Gln5 (6-72).
KW Analogues; modified; neutrophil activators; antagonists; human;
KW competitive antagonist; IL-8; inflammation; treatment; chemotaxis;
KW activity; stimulation; inflammatory response.
OS Synthetic.

FH Key location/Qualifiers
FT region 1 /note= "Leu5 -> Gln"
PN W0931159-A.
PD 10-JUN-1993.
PF 03-DEC-1992; CA0528.
PR 04-DEC-1991; US-801578.
PA (BIOM-) BIOMEDICAL RES CENT LTD.
PI Clark-Lewis I, Moser B;
DR WPI: 93-196997/24.

PT New interleukin-8 analogues modified in specified region - used as
PT neutrophil activators or for blocking effect of IL-8 on neutrophil(s)
PT for treatment of inflammation

PS Claim 16; Page 29; 47pp; English.
CC The sequence is that of an analogue of interleukin-8 (IL-8) comprising
CC IL-8 residues Gln5 (6-72). It is able to bind neutrophils and act
CC as a competitive antagonist of IL-8, i.e. it can be used to treat
CC inflammation, e.g. by intravenous injection or oral admin. It can
CC act as a neutrophil activator and so can be used to stimulate an
CC inflammatory response.
SQ Sequence 68 AA;

Query Match 85.1%; Score 86; DB 7; Length 68;
Best Local Similarity 75.0%; Pred. No. 5.71e-02;
Matches 9; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 44 elcldpkenwq 55
1 EICLDPKQKWQ 12

RESULT 28
ID R38081 standard; protein; 69 AA.

AC R38081;
DE 13-OCT-1993 (first entry)
DE Modified human interleukin-8 analogue (4-72).
KW Analogues; modified; neutrophil activators; antagonists; human;
KW competitive antagonist; IL-8; inflammation; treatment; chemotaxis;
KW activity; stimulation; inflammatory response.
OS Synthetic.

PN W0931159-A.
PD 10-JUN-1993.
PF 03-DEC-1992; CA0528.
PR 04-DEC-1991; US-801578.
PA (BIOM-) BIOMEDICAL RES CENT LTD.
PI Clark-Lewis I, Moser B;
DR WPI: 93-196997/24.

PT New interleukin-8 analogues modified in specified region - used as
PT neutrophil activators or for blocking effect of IL-8 on neutrophil(s)
PT for treatment of inflammation

PS Claim 9; Page 29; 47pp; English.

CC The sequence is that of an analogue of interleukin-8 (IL-8) comprising
 CC IL-8 residues 4-72. It is able to bind neutrophils and act as a
 CC competitive antagonist of IL-8, i.e. it can be used to treat
 CC inflammation, e.g. by intravenous injection or oral admin. It can
 CC act as a neutrophil activator and so can be used to stimulate an
 CC inflammatory response.
 SQ Sequence 69 AA;

Query Match 85.1%; Score 86; DB 7; Length 69;
 Best Local Similarity 75.0%; Pred. No. 5.71e-02;
 Matches 9; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 45 elcidpkenwvq 56
 |:|||||:||||
 QY 1 EICLDPKOKWVQ 12

RESULT 29
 ID R38082 standard; protein; 69 AA.
 AC R38082;
 DT 13-OCT-1993 (first entry)
 DE Modified human interleukin-8 analogue Ala4Ala5 (6-72).
 KW Analogues; modified; neutrophil activators; antagonists; human;
 KW competitive antagonist; IL-8; inflammation; treatment; chemotaxis;
 KW activity; stimulation; inflammatory response.
 OS Synthetic.
 FH Key
 FT region 1 Location/Qualifiers
 FT region 2 /note= "Glu4 -> Ala"
 FT region /note= "Leu5 -> Ala"
 PN WO9311159-A.
 PD 10-JUN-1993.
 PF 03-DEC-1992; CA0528.
 PR 04-DEC-1991; US-801578.
 PA (BIOM-) BIOMEDICAL RES CENT LTD.
 PI Clark-Lewis I, Moser B;
 DR WPI: 93-196997/24.
 PT New interleukin-8 analogues modified in specified region - used as
 PT neutrophil activators or for blocking effect of IL-8 on neutrophil(s)
 PT for treatment of inflammation
 PS Claim 10; Page 29; 47pp; English.
 CC The sequence is that of an analogue of interleukin-8 (IL-8) comprising
 CC IL-8 residues Ala4Ala5 (6-72). It is able to bind neutrophils and act
 CC as a competitive antagonist of IL-8, i.e. it can be used to treat
 CC inflammation, e.g. by intravenous injection or oral admin. It can
 CC act as a neutrophil activator and so can be used to stimulate an
 CC inflammatory response.
 SQ Sequence 69 AA;

Query Match 85.1%; Score 86; DB 7; Length 69;
 Best Local Similarity 75.0%; Pred. No. 5.71e-02;
 Matches 9; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 45 elcidpkenwvq 56
 |:|||||:||||
 QY 1 EICLDPKOKWVQ 12

RESULT 30
 ID W22675 standard; protein; 71 AA.
 AC W22675;
 DT 19-MAR-1998 (first entry)
 DE Drol3+ chemokine beta10 or monocyte chemotactic protein 4 variant.
 KW Human; Chemokine beta10; Ck beta10; treatment; antagonist;
 KW solid tumour; infection; autoimmune disease; asthma; antibody;
 KW fibrotic disease; psoriasis; neurodegenerative disease;
 KW wound healing; haematopoiesis regulation; gene therapy;
 KW chromosome identification; monocyte chemotactic protein 4;
 KW leukaemia; MCP-4; Drol3+ variant.
 OS Homo sapiens.
 PN WO9731098-A1.
 PD 28-AUG-1997.

PF 23-FEB-1996; U02598.
 PR 23-FEB-1996; WO-002598.
 PA (HOMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
 PI Parmelee D, White J;
 DR WPI: 97-435153/40.
 PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 PT protein 4 useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis
 PS Example 11; Fig 5; 83pp; English.
 CC The present sequence is human chemokine beta10 (Ck beta10) or
 CC monocyte chemotactic protein 4 (MCP-4) Drol3+ variant, which can
 CC be used to treat patients deficient in Ck beta10, while a Ck beta10
 CC antagonist can be used to reduce excessive levels of Ck beta10. Ck
 CC beta10 can be used to treat leukaemia, solid tumours, chronic or
 CC opportunistic infections, autoimmune diseases, asthma, fibrotic
 CC diseases, psoriasis and neurodegenerative diseases. It also
 CC promotes wound healing, regulates haematopoiesis and generates
 CC antibodies. Labelled Ck beta10 can be used to identify its cognate
 CC receptor, while cells expressing the receptor can be used to screen
 CC compounds for (ant)agonist activity. The antagonist can be used to
 CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
 CC infectious diseases, allergies, prostatic androgen dependent fever and
 CC bone marrow failure, sickle cell, sarcoidosis, hyper-eosinophilic
 CC syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can
 CC be used to isolate genes encoding similar peptides, in gene therapy
 CC and for chromosome identification.
 SQ Sequence 71 AA;

Query Match 85.1%; Score 86; DB 27; Length 71;
 Best Local Similarity 83.3%; Pred. No. 5.71e-02;
 Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 45 elcadpkekwwvq 56
 ||| |||:||||
 QY 1 EICLDPKOKWVQ 12

Search completed: Thu Apr 1 07:36:04 1999
 Job time : 24 secs.

97 51 50.5 677 2 S65573 phosphate-specific tr 4.44e+01
 98 51 50.5 735 2 A69146 hypothetical protein 4.44e+01
 99 51 50.5 1038 2 A11437 probable resistance g 4.44e+01
 100 51 50.5 1053 2 D71466 probable ribonucleosi 4.44e+01

ALIGNMENTS

RESULT 1 #type complete
 ENTRY JN0841
 TITLE interleukin-8 - dog
 ORGANISM #formal_name Canis lupus familiaris #common_name dog
 DATE 19-May-1994 #sequence_revision 19-May-1994 #text_change 12-Apr-1995

ACCESSIONS JN0841
 REFERENCE JN0841
 #authors Ishikawa, J.; Suzuki, S.; Hotta, K.; Hirota, Y.; Mizuno, S.; Suzuki, K.

#journal Gene (1993) 131:305-306
 #title Cloning of a canine gene homologous to the human interleukin-8-encoding gene.

#accession JN0841
 #molecule_type DNA
 #residues 1-95 #label ISH
 COMMENT This protein is a polymorphonuclear leukocytes chemotactic factor and is involved in the host defense function.

GENETICS 22/1; 67/2
 #introns
 CLASSIFICATION #superfamily beta-thromboglobulin
 SUMMARY #length 95 #molecular-weight 10611 #checksum 3157

Query Match 94.1%; Score 95; DB 2; Length 95;
 Best Local Similarity 83.3%; Pred. No. 8.37e-08;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
 Db 75 EVCLDPKRWQ 86
 1 EICLDPKRWQ 12

RESULT 2 #type complete
 ENTRY S42496
 TITLE interleukin 8 - sheep
 ORGANISM #formal_name Ovis orientalis aries, Ovis ammon aries
 #common_name domestic sheep
 DATE 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 08-Sep-1997

ACCESSIONS S42496
 REFERENCE S42496
 #authors Legastelois, I.; Greenland, T.; Arnaud, P.; Mornex, J.F.; Cordier, G.

#submission submitted to the EMBL Data Library, March 1994
 #description Nucleotide sequence of ovine interleukin 8 cDNA using polymerase chain reaction.

#accession S42496
 #status preliminary
 #molecule_type mRNA
 #residues 1-101 #label LEG
 #cross-references EMBL:X78306; NID:g463253; PID:g463254
 CLASSIFICATION #superfamily beta-thromboglobulin
 SUMMARY #length 101 #molecular-weight 11292 #checksum 294

Query Match 94.1%; Score 95; DB 2; Length 101;
 Best Local Similarity 83.3%; Pred. No. 8.37e-08;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 75 EVCLDPKRWQ 86
 1 EICLDPKRWQ 12

RESULT 3 #type complete
 ENTRY 146997

TITLE interleukin-8 - sheep
 ORGANISM #formal_name Ovis sp. #common_name sheep
 DATE 21-Feb-1997 #sequence_revision 21-Feb-1997 #text_change 09-May-1997

ACCESSIONS I46997
 REFERENCE I46997
 #authors Seo, H.F.; Yoshimura, T.; Wood, P.R.; Colditz, I.G.

#journal Immunol. Cell Biol. (1994) 72:398-405
 #title Cloning, sequencing, expression and inflammatory activity in skin of ovine interleukin-8.

#cross-references NID:95137691
 #accession I46997
 #status preliminary; translated from GB/EMBL/DBJ
 #molecule_type mRNA
 #residues 1-101 #label SEO
 #cross-references GB:S74436; NID:g786590; PID:g786591

GENETICS OIL-8
 CLASSIFICATION #superfamily beta-thromboglobulin
 SUMMARY #length 101 #molecular-weight 11292 #checksum 294

Query Match 94.1%; Score 95; DB 2; Length 101;
 Best Local Similarity 83.3%; Pred. No. 8.37e-08;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
 Db 75 EVCLDPKRWQ 86
 1 EICLDPKRWQ 12

RESULT 4 #type complete
 ENTRY A53096
 TITLE interleukin-8 precursor - pig
 ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
 DATE 02-Jun-1995 #sequence_revision 02-Jun-1995 #text_change 08-Sep-1997

ACCESSIONS A53096
 REFERENCE A53096
 #authors Lin, G.; Pearson, A.E.; Scamurra, R.W.; Zhou, Y.; Baarsch, M.J.; Weiss, D.J.; Murlaugh, M.P.

#journal J. Biol. Chem. (1994) 269:77-85
 #title Regulation of interleukin-8 expression in porcine alveolar macrophages by bacterial lipopolysaccharide.

#accession A53096
 #status preliminary
 #molecule_type mRNA
 #residues 1-103 #label LIN
 #cross-references GB:M6923; NID:g164520; PID:g164521
 CLASSIFICATION #superfamily beta-thromboglobulin
 SUMMARY #length 103 #molecular-weight 11633 #checksum 8835

Query Match 94.1%; Score 95; DB 2; Length 103;
 Best Local Similarity 83.3%; Pred. No. 8.37e-08;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 75 EVCLDPKRWQ 86
 1 EICLDPKRWQ 12

RESULT 5 #type complete
 ENTRY A44253
 TITLE alveolar macrophage chemotactic factor-I (AMCF-I)

ORGANISM interleukin-8 homolog - pig
 #formal_name Sus scrofa domestica #common_name domestic pig
 DATE 30-Apr-1993 #sequence_revision 18-Nov-1994 #text_change 23-Feb-1996

ACCESSIONS A44253
 REFERENCE A44253
 #authors Goodman, R.B.; Foster, D.C.; Mathews, S.L.; Osborn, S.G.; Kujper, J.L.; Forstrom, J.W.; Martin, T.R.
 #journal Biochemistry (1992) 31:10483-10490
 #title Molecular cloning of porcine alveolar macrophage-derived

neutrophil chemotactic factors I and II: identification of porcine IL-8 and another interleukin-alpha protein.

#cross-references MWID:93041741

#accession A44253

#status preliminary

#molecule-type mRNA: protein

#residues 1-103 ##label

#experimental-source alveolar macrophage

#note sequence extracted from NCBI backbone (NCBIN:117415, NCBI:P:117416)

CLASSIFICATION #superfamily beta-thromboglobulin

SUMMARY #length 103 #molecular-weight 11677 #checksum 8904

Query Match 94.1%; Score 95; DB 2; Length 103;

Best Local Similarity 83.3%; Pred. No. 8,37e-08;

Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 75 EVCLDPKRWQ 86

QY 1 EICLDPKRWQ 12

RESULT 6

ENTRY I46871 #type complete

TITLE interleukin-8 - rabbit

ALTERNATE_NAMES neutrophil attractant/activation protein-1

ORGANISM #formal_name Oryctolagus cuniculus #common_name domestic rabbit

DATE 14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change 09-Aug-1997

ACCESSIONS I46871: S13052

REFERENCE I46857

#authors Yoshimura, T.; Yuhki, N.

#journal J. Immunol. (1991) 146:3483-3488

#title Neutrophil attractant/activation protein-1 and monocyte chemoattractant protein-1 in rabbit: cDNA cloning and their expression in spleen cells.

#cross-references MWID:9125489

#accession I46871

#status preliminary; translated from GB/EMBL/DBJ

#molecule-type mRNA

#residues 1-101 ##label YOS

#cross-references GB:M57439; NID:g165552; PID:g165553

REFERENCE S13052

#authors Beaubien, B.C.; Collins, P.D.; Jose, P.J.; Totty, N.F.; Hsuan, J.; Waterfield, M.D.; Williams, T.J.

#journal Biochem. J. (1990) 271:797-801

#title A novel neutrophil chemoattractant generated during an inflammatory reaction in the rabbit peritoneal cavity in vivo. Purification, partial amino acid sequence and structural relationship to interleukin 8.

#cross-references MWID:9108518

#accession S13052

#molecule-type protein

#residues 23-33 'X', 35 'X', 37-46 'X', 48-49 'Y', 51-53 ##label BEA

CLASSIFICATION #superfamily beta-thromboglobulin

KEYWORDS cytokine

SUMMARY #length 101 #molecular-weight 11402 #checksum 1085

Query Match 91.1%; Score 92; DB 2; Length 101;

Best Local Similarity 83.3%; Pred. No. 3,85e-07;

Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 75 ELCLDPKRWQ 86

QY 1 EICLDPKRWQ 12

RESULT 7

ENTRY A60299 #type complete

TITLE monocyte chemoattractant protein 1 precursor - human

ALTERNATE_NAMES GDF-1; glioma-derived monocyte chemoattractant factor 1; MCAF; MCP-1; monocyte chemotactic factor 1; monocyte secretory

CONTAINS protein: tumor-derived chemotactic factor

ORGANISM glioma-derived chemotactic factor 2 (GDCF-2)

DATE #formal_name Homo sapiens #common_name man

ACCESSIONS 20-Feb-1993 #sequence_revision 20-Feb-1993 #text_change 20-Mar-1998

REFERENCE A35474: S03339; I51841; A60299; A32300; A32396;

#authors A34561; I57488; JC1096

#journal A35474

#title Shyy, Y.-J.; Li, Y.-S.; Kolattukudy, P.E.

#title Biochem. Biophys. Res. Commun. (1990) 169:346-351

#title Structure of human monocyte chemotactic protein gene and its regulation by TPA.

#cross-references MWID:90290466

#accession A35474

#molecule-type DNA

#residues 1-99 ##label SHY

#cross-references GB:M37719; NID:g187447; PID:g487124

REFERENCE A33476

#authors Rollins, B.J.; Stier, P.; Ernst, T.; Wong, G.G.

#journal Mol. Cell. Biol. (1989) 9:4687-4695

#title The human homolog of the JE gene encodes a monocyte secretory protein.

#cross-references MWID:90097880

#accession A33476

#molecule-type mRNA

#residues 1-99 ##label ROL

#cross-references GB:M30816; GB:M31625; GB:M31626; NID:g188701; PID:g386961

REFERENCE S03339

#authors Yoshimura, T.; Yuhki, N.; Moore, S.K.; Appella, E.; Lerman, M.T.; Leonard, E.J.

#journal FBS Lett. (1988) 244:487-493

#title Human monocyte chemoattractant protein-1 (MCP-1). Full-length cDNA cloning, expression in mitogen-stimulated blood mononuclear leukocytes, and sequence similarity to mouse competence gene JE.

#cross-references MWID:89153605

#accession S03339

#status not compared with conceptual translation

#molecule-type mRNA

#residues 1-99 ##label YOS

#cross-references GB:X14768; NID:g34513; PID:g34514

#experimental-source glioma cell line U-105MG

REFERENCE I51841

#authors Yoshimura, T.; Leonard, E.J.

#journal Adv. Exp. Med. Biol. (1991) 305:47-56

#title Human monocyte chemoattractant protein-1 (MCP-1).

#cross-references MWID:92095166

#accession I51841

#status preliminary; translated from GB/EMBL/DBJ

#molecule-type mRNA

#residues 1-99 ##label YO2

#cross-references GB:G71513; NID:g240867; PID:g240868

REFERENCE A60299

#authors Bottazzi, B.; Colotta, F.; Sica, A.; Nobili, N.; Mantovani, A.

#journal Int. J. Cancer (1990) 45:795-797

#title A chemoattractant expressed in human sarcoma cells (tumor-derived chemotactic factor, TDCF) is identical to monocyte chemoattractant protein-1/monocyte chemotactic and activating factor (MCP-1/MCAF).

#accession A60299

#status not compared with conceptual translation

#molecule-type mRNA

#residues 1-99 ##label BOT

REFERENCE A32300

#authors Furutani, Y.; Nomura, H.; Notake, M.; Oyama, Y.; Fukui, T.; Yamada, M.; Larsen, C.G.; Oppenheim, J.J.; Matsushima, K.

#journal Biochem. Biophys. Res. Commun. (1989) 159:249-255

#title Cloning and sequencing of the cDNA for human monocyte chemotactic and activating factor (MCAF).

#cross-references MWID:89165862

#accession A32300

```

##status      not compared with conceptual translation
##molecule_type mRNA
##residues    1-99 ##label FUR
##cross-references GB:M24545; NID:g187434; PID:g307163
REFERENCE
#authors      Robinson, E.A.; Yoshimura, T.; Leonard, E.J.; Tanaka, S.;
              Griffin, P.R.; Shabanowitz, J.; Hunt, D.F.; Appella, E.
#journal      Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1850-1854
#title        Complete amino acid sequence of a human monocyte
              chemotactic protein, a putative mediator of cellular immune
              reactions.
#cross-references MIMD:89184525
#accession    A32396
##molecule_type protein
##residues    A34561
#journal      Decock, B.; Conings, R.; Lenaerts, J.P.; Billiau, A.; Van
              Damme, J.
#journal      Biochem. Biophys. Res. Commun. (1990) 167:904-909
#title        Identification of the monocyte chemotactic protein from human
              osteosarcoma cells and monocytes: detection of a novel
              N-terminally processed form.
#cross-references MIMD:90211336
#accession    A34561
##molecule_type protein
##residues    29-33,'XX',36-52;82-92 ##label DEC
REFERENCE
#authors      Li, Y.S.; Shyy, Y.J.; Wright, J.G.; Valente, A.J.; Cornhill,
              J.F.; Kolattukudy, P.E.
#journal      Mol. Cell. Biochem. (1993) 126:61-68
#title        The expression of monocyte chemotactic protein (MCP-1) in
              human vascular endothelium in vitro and in vivo.
#cross-references MIMD:94150478
#accession    I57488
##status      translated from GB/EMBL/DBJ
##molecule_type mRNA
##residues    1-99 ##label LIY
##cross-references GB:S69738; NID:g545464; PID:g545465
REFERENCE
#authors      Ye, Q.N.; Su, G.F.; Yuan, Y.; Huang, C.F.;
              Chinese J. Microbiol. Immunol. (1994) 14:29-32
#journal      The PCR, cloning and sequencing of human monocyte
              chemottractant protein-1 (MCP-1) gene.
#accession    JCI096
##molecule_type mRNA
##residues    24-28,'Q',30-99 ##label YEQ
GENETICS
#gene         GDB:SCYA2
#cross-references GDB:125279; OMIM:158105
#position     17q11.2-17q12
CLASSIFICATION
#superfamily macrophage inflammatory protein
KEYWORDS      cytokine; glycoprotein; inflammatory; pyroglutamic acid
FEATURE
1-23          #domain signal sequence #status predicted #label SIG\
24-99         #product monocyte chemottractant protein 1 #status
              experimental #label MAT\
29-99         #product monocyte chemottractant protein 1, short form
              #status experimental #label MAT\
24           #modified_site pyrrolidone carboxylic acid (Gln) (1n
              mature form) #status experimental\
37           #binding_site carbohydrate (Asn) (covalent) #status
              predicted
SUMMARY
#length 99 #molecular-weight 11025 #checksum 7984
Query Match      89.1%; Score 90; DB 2; Length 99;
Best Local Similarity 91.7%; Pred. No. 1.05e-06;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
DB 73 EICADPKOKWQ 84
      ||| |||||
OY 1 EICLDPKOKWQ 12

```

```

RESULT 8
ENTRY   JC2136
TITLE   #type complete
ORGANISM monocyte chemottractant protein-1 precursor - pig
          #formal_name Sus scrofa domestica #common_name domestic pig
          DATE 30-Sep-1993 #sequence_revision 20-Aug-1994 #text_change
          08-Sep-1997
ACCESSIONS
REFERENCE JC2136; S57498
#authors  Hosang, K.; Knoke, I.; Klaudiny, J.; Wempe, F.; Wuttke, W.;
          Schell, K.H.
#journal  Biochem. Biophys. Res. Commun. (1994) 199:962-968
#title    Porcine luteal cells express monocyte chemottractant
          protein-1 (MCP-1): Analysis by polymerase chain reaction
          and cDNA cloning.
#accession JC2136
##molecule_type mRNA
##residues 1-99 ##label HOS
REFERENCE S57497
#authors  Zach, O.
#submission submitted to the EMBL Data Library, July 1994
#accession S57498
##status  preliminary
##molecule_type mRNA
##residues 1-99 ##label ZAC
##cross-references EMBL:X79416; NID:g872312; PID:g872313
CLASSIFICATION
#superfamily macrophage inflammatory protein
KEYWORDS  glycoprotein
FEATURE
1-23      #domain signal sequence #status predicted #label SIG\
24-99     #product monocyte chemottractant protein-1 #status
          predicted #label MAT\
94        #binding_site carbohydrate (Asn) (covalent) #status
          predicted
SUMMARY
#length 99 #molecular-weight 10976 #checksum 9768
Query Match      88.1%; Score 89; DB 2; Length 99;
Best Local Similarity 83.3%; Pred. No. 1.74e-06;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
DB 73 EICADPKOKWQ 84
      ||| |||||
OY 1 EICLDPKOKWQ 12
RESULT 9
ENTRY   A37034
TITLE   #type complete
ALTERNATE_NAMES interleukin-8 precursor - human
                 neutrophil-activating factor alpha; fibroblast-derived
                 chemotaxin; lymphocyte-derived neutrophil-activating
                 factor; monocyte-derived neutrophil chemotactic factor;
                 #formal_name Homo sapiens #common_name man
                 #Dec-1992 #sequence_revision 08-Dec-1992 #text_change
                 13-Sep-1998
ACCESSIONS A37034; JI0041; A32791; S37634; P10107; A28598; A27486;
           A39960; A60401; A60591; S15827; S04216; A60567; A60847;
           S15417; S03975; I54560; I55992; I37902; S67519
REFERENCE A37034
#authors  Mukaida, N.; Shiroo, M.; Matsushima, K.
#journal  J. Immunol. (1989) 143:1366-1371
#title    Genomic structure of the human monocyte-derived neutrophil
          chemotactic factor IL-8.
#cross-references MIMD:89309826
#accession A37034
##molecule_type DNA
##residues 1-99 ##label MUK
##cross-references GB:M28130; NID:g186367; PID:g186368
#note     The authors failed to translate the last thirty-six
          nucleotides of the second exon
REFERENCE JI0041
          Matsushima, K.; Morishita, K.; Yoshimura, T.; Lavu, S.;
          Kobayashi, Y.; Lew, W.; Appella, E.; Kung, H.F.; Leonard,

```

E. J.; Oppenheim, J. J.
#journal J. Exp. Med. (1988) 167:1883-1893
#title Molecular cloning of a human monocyte-derived neutrophil chemotactic factor (MNCf) and the induction of MNCf mRNA by interleukin 1 and tumor necrosis factor.
#cross-references MUID:88258376
#accession J10041
##molecule-type mRNA
##residues 1-99 #label MA1
##cross-references EMBL:Y00787; NID:g34518; PID:g34519
#note the sequence shows similarity to several platelet-derived factors, a v-src-induced protein, a growth-regulated gene product (gro), and an IFN-gamma inducible protein

REFERENCE
#authors Kowalski, J.; Denhardt, D. T.
#journal Mol. Cell. Biol. (1989) 9:1946-1957
#title Regulation of the mRNA for monocyte-derived neutrophil-activating peptide in differentiating HL60 promyelocytes.
#cross-references MUID:89313739
#accession A32791
##molecule-type mRNA
##residues 1-99 #label KOM
##cross-references GB:M26383; NID:g188627; PID:g188628

REFERENCE
#authors King, C. H.; Gordon, G. S.; Konieczkowski, M.; Sedor, J. R.
#submission Submitted to the EMBL Data Library, February 1992
#accession S37634
##status preliminary
##molecule-type mRNA
##residues 1-97 #label KIN
##cross-references EMBL:Z11666; NID:g33958; PID:g33959

REFERENCE
#authors Suzuki, K.; Miyasaka, H.; Ota, H.; Yamakawa, Y.; Tagawa, M.; Kuramoto, A.; Mizuno, S.
#journal J. Exp. Med. (1989) 169:1895-1901
#title Purification and partial primary sequence of a chemotactic protein for polymorphonuclear leukocytes derived from human lung giant cell carcinoma L065C cells.
#cross-references MUID:89279141
#accession P10107
##molecule-type protein
##residues 23-32, 'X', '35', 'X', '37-52', 'V', '54' #label SUZ
##experimental_source lung giant cell carcinoma L065C

REFERENCE
#authors Gregory, H.; Young, J.; Schroeder, J. M.; Mrowietz, U.; Christophers, E.
#journal Biochem. Biophys. Res. Commun. (1988) 151:883-890
#title Structure determination of a human lymphocyte derived neutrophil activating peptide (LYNAP).
#cross-references MUID:88162914
#accession A28598
##molecule-type protein
##residues 28-99 #label GRE

REFERENCE
#authors Walz, A.; Beveri, P.; Aschauer, H.; Baggiolini, M.
#journal Biochem. Biophys. Res. Commun. (1987) 149:755-761
#title Purification and amino acid sequencing of MNF, a novel neutrophil-activating factor produced by monocytes.
#cross-references MUID:88106502
#accession A27488
##molecule-type protein
##residues 28-59 #label WAL

REFERENCE
#authors Yoshimura, T.; Matsushima, K.; Tanaka, S.; Robinson, E. A.; Appella, E.; Oppenheim, J. J.; Leonard, E. J.
#journal Proc. Natl. Acad. Sci. U.S.A. (1987) 84:9233-9237
#title Purification of a human monocyte-derived neutrophil chemotactic factor that has peptide sequence similarity to other host defense cytokines.
#cross-references MUID:88097462
#accession A39960

##molecule-type protein
##residues 28-69 #label YOS

REFERENCE
#authors Schroeder, J. M.; Sticherling, M.; Henneicke, H. H.; Preissner, W. C.; Christophers, E.
#journal J. Immunol. (1990) 144:2223-2232
#title IL-1alpha or tumor necrosis factor-alpha stimulate release of three Nalp-1/IL-8-related neutrophil chemotactic proteins in human dermal fibroblasts.
#cross-references MUID:90187866
#accession A60401
##molecule-type protein
##residues 23-32 #label SCH
##experimental_source dermal fibroblasts
#note a minor component of this material (15%) includes an additional two amino acids at the amino end

REFERENCE
#authors Van Damme, J.; Decock, B.; Conings, R.; Lenaerts, J. P.; Opdenakker, G.; Billiau, A.
#journal Eur. J. Immunol. (1989) 19:1189-1194
#title The chemotactic activity for granulocytes produced by virally infected fibroblasts is identical to monocyte-derived interleukin 8.
#accession A60591
##molecule-type protein
##residues 23-33, 'X', '35', 'X', '37-42' #label VAN

REFERENCE
#authors Nakagawa, H.; Hatakeyama, S.; Ikeue, A.; Miyai, H.
#journal FEBS Lett. (1991) 282:412-414
#title Generation of interleukin-8 by plasmin from AVLP-interleukin-8, the human fibroblast-derived neutrophil chemotactic factor.
#cross-references MUID:91243843
#accession S15827
##molecule-type protein
##residues 23-33, 'X', '35', 'X', '37-47' #label FEB

REFERENCE
#authors Van Damme, J.; Van Beeumen, J.; Conings, R.; Decock, B.; Billiau, A.
#journal Eur. J. Biochem. (1989) 181:337-344
#title Purification of granulocyte chemotactic peptide/interleukin-8 reveals N-terminal sequence heterogeneity similar to that of beta-thromboglobulin.
#cross-references MUID:89231715
#accession S04216
##molecule-type protein
##residues 21-67 #label VA2

REFERENCE
#authors Yoshimura, T.; Robinson, E. A.; Appella, E.; Matsushima, K.; Showalter, S. D.; Skeel, A.; Leonard, E. J.
#journal Mol. Immunol. (1989) 26:87-93
#title Three forms of monocyte-derived neutrophil chemotactic factor (MNCf) distinguished by different lengths of the amino-terminal sequence.
#accession A60567
##molecule-type protein
##residues 21-33, 'X', '35', 'X', '37-47' #label YO2
#note the forms starting from positions 21, 23, and 28 represented 8%, 47%, and 45%, respectively, of total interleukin-8

REFERENCE
#authors Van Damme, J.; Van Beeumen, J.; Opdenakker, G.; Billiau, A.
#journal J. Exp. Med. (1988) 167:1364-1376
#title A novel, NH-2-terminal sequence-characterized human monokine possessing neutrophil chemotactic, skin-reactive, and granulocytosis-promoting activity.
#accession A60847
##molecule-type protein
##residues 28-47 #label VA3

REFERENCE
#authors Car, B. D.; Baggiolini, M.; Walz, A.
#journal Biochem. J. (1991) 275:581-584
#title Formation of neutrophil-activating peptide 2 from

platelet-derived connective-tissue-activating peptide III
by different tissue proteinases.

#cross-references MUID:91248085
#accession S15417
#status preliminary
#molecule-type protein
#residues 28-99 ##label CAR

REFERENCE S03975
#authors Golds, E.E.; Mason, P.; Nyirkos, P.
#journal Biochem. J. (1989) 259:585-588
#title Inflammatory cytokines induce synthesis and secretion of gro protein and a neutrophil chemotactic factor but not beta-2-microglobulin in human synovial cells and fibroblasts

#cross-references MUID:89246368
#accession S03975
#molecule-type protein
#residues 23-46 ##label GOL

REFERENCE I54560
#authors Hotta, K.; Hayashi, K.; Ishikawa, J.; Tagawa, M.; Hashimoto, K.; Mizuno, S.; Suzuki, K.
#journal Immunol. Lett. (1990) 24:165-170
#title Coding region structure of interleukin-8 gene of human lung giant cell carcinoma LU65C cells that produce LUCF/interleukin-8: homogeneity in interleukin-8 genes.
#cross-references MUID:90346419

...
Note: remainder of annotations omitted.

Query Match .85.1%; Score 86; DB 2; Length 99;
Best Local Similarity 75.0%; Pred. No. 7.74e-06;
Matches 9; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 75 EICLDPRKQKRWQ 86
I:|||||:||||
QY 1 EICLDPRKQKRWQ 12

RESULT 10
ENTRY I48148 #type complete
TITLE Neutrophil attractant protein-1 - guinea pig
ORGANISM #formal_name Cavia porcellus #common_name guinea pig
DATE 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 23-Feb-1997

ACCESSIONS I48148
REFERENCE I48148
#authors Yoshimura, T.; Johnson, D.G.
#journal J. Immunol. (1993) 151:6225-6236
#title cDNA cloning and expression of guinea pig neutrophil attractant protein-1 (NAP-1): NAP-1 is highly conserved in guinea pig

#cross-references MUID:94065176
#accession I48148
#status preliminary: translated from GB/EMBL/DBJ
#molecule-type DNA
#residues 1-101 ##label RES
#cross-references GB:I04986; NID:9459764; PID:9459765

GENETICS
#gene NAP-1
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 101 #molecular-weight 11414 #checksum 2363

Query Match 85.1%; Score 86; DB 2; Length 101;
Best Local Similarity 75.0%; Pred. No. 7.74e-06;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 75 QLCIDPKKKRWQ 86
::||||| ||||
QY 1 EICLDPRKQKRWQ 12

RESULT 11
ENTRY A39296 #type complete

TITLE
ALTERNATE_NAMES
ORGANISM
DATE
ACCESSIONS
REFERENCE
#authors
#journal
#title
#cross-references MUID:92096117
#accession A39296
#molecule-type mRNA
#residues 1-99 ##label WEM
#cross-references GB:M84602; GB:M85264; NID:G163394; PID:G163395
#accession B39296
#molecule-type protein
#residues 50-68,'X',70-74,'X',76 ##label WE2
#experimental_source seminal vesicle
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS glycoprotein
FEATURE 1-23
24-99
94
#domain signal sequence #status predicted #label SIG\predicted
#product monocytic chemottractant protein 1 #status predicted
#binding_site carbohydrate (Asn) (covalent) #status predicted

SUMMARY #length 99 #molecular-weight 11114 #checksum 9401

Query Match 84.2%; Score 85; DB 2; Length 99;
Best Local Similarity 83.3%; Pred. No. 1.27e-05;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 73 EICADPRKQKRWQ 84
I:||||| ||||
QY 1 EICLDPRKQKRWQ 12

RESULT 12
ENTRY JC2336 #type complete
TITLE monocytic chemottractant protein-1 - bovine
ORGANISM #formal_name Bos primigenius indicus #common_name zebu cattle
DATE 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 03-May-1996

ACCESSIONS JC2336
REFERENCE JC2336
#authors Wempe, F.; Kuhlmann, J.K.; Schelt, K.H.
#journal Biochem. Biophys. Res. Commun. (1994) 202:1272-1279.
#title Characterization of the bovine monocytic chemottractant protein-1 gene.

#accession JC2336
#molecule-type protein
#residues 1-99 ##label WEM

GENETICS
#gene MCP-1
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 99 #molecular-weight 11114 #checksum 9401

Query Match 84.2%; Score 85; DB 2; Length 99;
Best Local Similarity 83.3%; Pred. No. 1.27e-05;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 73 EICADPRKQKRWQ 84
I:||||| ||||
QY 1 EICLDPRKQKRWQ 12

RESULT 13
ENTRY I46857 #type complete
TITLE monocytic chemottractant protein-1 - rabbit

```

ORGANISM #formal_name Oryctolagus cuniculus #common_name domestic
#rabbitt
DATE 14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change
09-May-1997
ACCESSIONS 146857
REFERENCE 146857
#authors Yoshimura, T.; Yuhki, N.
#journal J. Immunol. (1991) 146:3483-3488
#title Neutrophil attractant/activation protein-1 and monocyte
chemoattractant protein-1 in rabbit: cDNA cloning and their
expression in spleen cells.
#cross-references MUID:91225489
#accession 146857
##status preliminary; translated from GB/EMBL/DBJ
##molecule_type mRNA
##residues 1-125 #label YOS
##cross-references GB:M57440; NID:g165469; PID:g165470
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 125 #molecular-weight 13776 #checksum 4498

Query Match 83.2%; Score 84; DB 2; Length 125;
Best Local Similarity 90.9%; Pred. No. 2.07e-05;
Matches 10; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 74 ICADPKOKWQV 84
1111111111
QY 2 ICADPKOKWQV 12

RESULT 14
ENTRY A54678 #type complete
TITLE monocytic chemotactic protein 3 precursor - human
ALTERNATE_NAMES monocytic chemoattractant protein MCP-3
ORGANISM #formal_name Homo sapiens #common_name man
DATE 28-Oct-1994 #sequence_revision 28-Oct-1994 #text_change
24-Sep-1998
ACCESSIONS A54678; JCI478; S32222
REFERENCE A54678
#authors Opdenakker, G.; Filten, P.; Nys, G.; Froyen, G.; Van Roy, N.;
Speleman, F.; Laureys, G.; Van Damme, J.
#journal Genomics (1994) 21:403-408
#title The human MCP-3 gene (SCYA7): cloning, sequence analysis, and
assignment to the C-C chemokine gene cluster on chromosome
17q11.2-q12.
#accession A54678
##molecule_type DNA
##residues 1-109 #label OPD
##cross-references GB:X72309
REFERENCE JCI478
#authors Opdenakker, G.; Froyen, G.; Filten, P.; Proost, P.; Van Damme,
J.
#journal Biochem. Biophys. Res. Commun. (1993) 191:535-542
#title Human monocyte chemotactic protein-3 (MCP-3): Molecular
cloning of the cDNA and comparison with other chemokines.
#accession JCI478
##molecule_type mRNA
##residues 1-109 #label OP2
REFERENCE S32222
#authors Minty, A.; Chalon, P.; Guillemot, J.C.; Kaghad, M.; Liauzun,
P.; Megaritz, M.; Miloux, B.; Miltz, C.; Ramond, P.; Vita,
N.; Luperier, J.; Shire, D.; Ferrara, P.; Caput, D.
#journal P. Natl. Acad. Sci. USA (1993) 90:1048-1052
#title Molecular cloning of MCP-3: a human monocyte-derived monocyte
chemoattractant protein.
#accession S32222
##molecule_type mRNA
##residues 1-109 #label MTN
##cross-references EMBL:X71087; NID:g288396; PID:g288397
COMMENT This protein induces proteinase secretion and chemotaxis by
macrophages and monocytes.

GENETICS
#gene GDB:SCYA7; SCYA6; MCP-3
#cross-references GDB:138473; OMIM:158106

#map position 17q11-17q12
#introns 36/1; 75/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS cytokine; glycoprotein; inflammation
FEATURE 1-33
34-109 #domain signal sequence #status predicted #label SIG\
#product monocyte chemotactic protein 3 #status
predicted #label MAT\
#binding_site carbonylde (Asn) (covalent) #status
predicted
SUMMARY #length 109 #molecular-weight 12356 #checksum 1535

Query Match 82.2%; Score 83; DB 2; Length 109;
Best Local Similarity 83.3%; Pred. No. 3.37e-05;
Matches 10; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Db 83 EICADPKOKWQV 94
1111111111
QY 1 EICADPKOKWQV 12

RESULT 15
ENTRY JC2417 #type complete
TITLE monocytic chemoattractant protein-2 - pig
ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
DATE 24-Feb-1995 #sequence_revision 24-Feb-1995 #text_change
03-May-1996
ACCESSIONS JC2417
REFERENCE JC2417
#authors Hosang, K.; Knoke, I.; Klaudiny, J.; Wempe, F.; Wuttke, W.;
Schelt, K.H.
#journal Biochem. Biophys. Res. Commun. (1994) 205:148-153
#title Porcine luteal cells express monocyte chemoattractant
protein-2 (MCP-2): Analysis by cDNA cloning and northern
analysis.
#accession JC2417
##molecule_type mRNA
##residues 1-99 #label HOS
##experimental_source corpus luteum
CLASSIFICATION #superfamily macrophage inflammatory protein
FEATURE 1-23
24-99 #domain signal sequence #status predicted #label SIG\
#product monocyte chemoattractant protein-2 #status
predicted #label MAT
SUMMARY #length 99 #molecular-weight 10903 #checksum 7556

Query Match 80.2%; Score 81; DB 2; Length 99;
Best Local Similarity 75.0%; Pred. No. 8.91e-05;
Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 73 EVCADPKOKWQV 84
1111111111
QY 1 EICADPKOKWQV 12

RESULT 16
ENTRY I48147 #type complete
TITLE monocyte chemoattractant protein-1 - guinea pig
ORGANISM #formal_name cavia porcellus #common_name guinea pig
DATE 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
09-May-1997
ACCESSIONS I48147
REFERENCE I48147
#authors Yoshimura, T.
#journal J. Immunol. (1993) 150:5025-5032
#title cDNA cloning of guinea pig monocyte chemoattractant protein-1
and expression of the recombinant protein.
#accession I48147
##status preliminary; translated from GB/EMBL/DBJ
##molecule_type mRNA
##residues 1-120 #label RRS
#cross-references GDB:104985; NID:g349820; PID:g349821

```

```

GENETICS
#gene MCP-1
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 120 #molecular-weight 13741 #checksum 9252

Query Match
Best Local Similarity 80.2%; Score 81; DB 2; Length 120;
Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 71 EVCADPTQKRWQ 82
QY 1 EICLDPKQKRWQ 12

RESULT 17
ENTRY JC4912 #type complete
TITLE eotaxin - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 01-Nov-1996 #sequence_revision 01-Nov-1996 #text_change
08-Sep-1997

ACCESSIONS
REFERENCE JC4912
#authors Bartels, J.; Schlueter, C.; Richter, E.; Noso, N.; Kulke, R.;
#journal Christophers, E.; Schroeder, J.M.
#title Biochem. Biophys. Res. Commun. (1996) 225:1045-1051
#title Human dermal fibroblasts express eotaxin: Molecular cloning,
#title mRNA expression, and identification of eotaxin sequence
#title variants.
#accession JC4912
#status preliminary
#molecule_type mRNA
#residues 1-97 #label BAR
#cross-references EMBL:275668; NID:g1531982; PID:e251275; PID:g1531983
COMMENT #experimental_source dermal fibroblast
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS fibroblast
FEATURE
1-18 #domain signal sequence #status predicted #label SIG\
19-97 #product eotaxin #status predicted #label MAT
SUMMARY #length 97 #molecular-weight 10790 #checksum 448

Query Match
Best Local Similarity 78.2%; Score 79; DB 2; Length 97;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 71 DICADPKRKYQ 82
QY 1 EICLDPKQKRWQ 12

RESULT 18
ENTRY A53497 #type complete
TITLE pre-B-cell growth-stimulating factor precursor - mouse
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 02-Jun-1994 #sequence_revision 02-Jun-1994 #text_change
10-Sep-1997
ACCESSIONS
REFERENCE A53497
#authors Nagasawa, T.; Kikutani, H.; Kishimoto, T.
#journal Proc. Natl. Acad. Sci. U.S.A. (1994) 91:2305-2309
#title Molecular cloning and structure of a pre-B-cell
#title growth-stimulating factor.
#accession A53497
#status preliminary
#molecule_type mRNA
#residues 1-89 #label NAG
#cross-references GB:D21072; NID:g413905; PID:d1005177; PID:g468457
REFERENCE I59582
#authors Tashiro, K.; Tada, H.; Heilker, R.; Shirozu, M.; Nakano, T.;
#journal Honjo, T.
#title Science (1993) 261:600-603
#title Signal sequence trap: a cloning strategy for secreted

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#cross-references MUID:93342488
#accession I59582
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-89 #label RES
#cross-references GB:L12029; NID:g393179; PID:g393180

GENETICS
#gene SDF-1-alpha
KEYWORDS cytokine
SUMMARY #length 89 #molecular-weight 10032 #checksum 4622

Query Match
Best Local Similarity 77.2%; Score 78; DB 2; Length 89;
Matches 7; Conservative 4; Mismatches 1; Indels 0; Gaps 0;

Db 69 QVCIDPKLKWQ 80
QY 1 EICLDPKQKRWQ 12

RESULT 19
ENTRY I53416 #type complete
TITLE interleukin-8 homolog - mouse
ORGANISM #formal_name Mus sp. #common_name mouse
DATE 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change
28-Feb-1997

ACCESSIONS
REFERENCE I53416
#authors Jiang, W.; Zhou, P.; Kahn, S.M.; Tomlita, N.; Johnson, M.D.;
#journal Weinstein, I.B.
#title Exp. Cell Res. (1994) 215:284-293
#title Molecular cloning of TP41, a gene whose expression is
#title repressed by the tumor promoter 12-O-tetradecanoylphorbol
#title 13-acetate (TPA).
#cross-references MUID:95073497
#accession I53416
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-89 #label RES
#cross-references GB:S74318; NID:g786393; PID:g786394

GENETICS
#gene TP41
SUMMARY #length 89 #molecular-weight 10032 #checksum 4622

Query Match
Best Local Similarity 77.2%; Score 78; DB 2; Length 89;
Matches 7; Conservative 4; Mismatches 1; Indels 0; Gaps 0;

Db 69 QVCIDPKLKWQ 80
QY 1 EICLDPKQKRWQ 12

RESULT 20
ENTRY I81182 #type complete
TITLE cytokine - mouse
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change
28-Feb-1997
ACCESSIONS
REFERENCE I81182
#authors Tashiro, K.; Tada, H.; Heilker, R.; Shirozu, M.; Nakano, T.;
#journal Honjo, T.
#title Science (1993) 261:600-603
#title Signal sequence trap: a cloning strategy for secreted
#title proteins and type I membrane proteins.
#accession I81182
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-93 #label RES
#cross-references GB:L12030; NID:g393181; PID:g393182

```

GENETICS
#gene SDF-1-beta
SUMMARY #length 93 #molecular-weight 10561 #checksum 5309

Query Match 77.2%; Score 78; DB 2; Length 93;
Best Local Similarity 58.3%; Pred. No. 3,76e-04;
Matches 7; Conservative 4; Mismatches 1; Indels 0; Gaps 0;

Db 69 QVCIDPKRWQ 80
:::|||||
Qy 1 EICLDPKRWQ 12

RESULT 21
ENTRY G01540 #type complete
TITLE cytokine SDF-1-beta - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 21-Dec-1996 #sequence_revision 06-Jun-1997 #text_change 17-Jul-1998

ACCESSIONS G01540
REFERENCE G07697
#authors Spottila, L.D.
#submission Submitted to the EMBL Data Library, October 1994
#accession G01540

#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-93 #label SPO
#cross-references EMBL:U16752; NID:91272194; PID:9571508
SUMMARY #length 93 #molecular-weight 10666 #checksum 6309

Query Match 77.2%; Score 78; DB 2; Length 93;
Best Local Similarity 58.3%; Pred. No. 3,76e-04;
Matches 7; Conservative 4; Mismatches 1; Indels 0; Gaps 0;

Db 69 QVCIDPKRWQ 80
:::|||||
Qy 1 EICLDPKRWQ 12

RESULT 22
ENTRY I48099 #type complete
TITLE eotaxin precursor - guinea pig
ORGANISM #formal_name Cavia porcellus #common_name guinea pig
DATE 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 09-May-1997

ACCESSIONS I48099
REFERENCE I48099
#authors Rothenberg, M.E.; Luster, A.D.; Lilly, C.M.; Drazen, J.M.; Leder, P.
#journal J. Exp. Med. (1995) 181:1211-1216
#title Constitutive and allergen-induced expression of eotaxin mRNA in the guinea pig lung.
#cross-references MVID:95173589

#accession I48099
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-96 #label RES
#cross-references EMBL:U18941; NID:9687655; PID:9687656
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 96 #molecular-weight 10753 #checksum 7236

Query Match 76.2%; Score 77; DB 2; Length 96;
Best Local Similarity 81.8%; Pred. No. 6,04e-04;
Matches 9; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Db 71 ICADPKRWQ 81
|||||
Qy 2 ICIDPKRWQ 12

RESULT 23
ENTRY JC2478 #type complete
TITLE eotaxin - rat

ORGANISM #formal_name Rattus norvegicus #common_name Norway rat
DATE 21-Feb-1995 #sequence_revision 05-Apr-1995 #text_change 08-Sep-1997

ACCESSIONS JC2478
REFERENCE JC2478
#authors Jose, P.J.; Adcock, I.M.; Griffiths-Johnson, D.A.; Berkman, N.; Wells, T.N.C.; Williams, T.J.; Power, C.A.
#journal Biochem. Biophys. Res. Commun. (1994) 205:788-794
#title Eotaxin: Cloning of an eosinophil chemoattractant cytokine and increased mRNA expression in allergen-challenged guinea-pig lungs.

#accession JC2478
#molecule_type mRNA
#residues 1-96 #label JOS
#cross-references EMBL:X77603; NID:9602551; PID:9602552
COMMENT This protein is identified as a potent eosinophil chemoattractant.
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS glycoprotein
FEATURE 1-23
1-23 #domain signal sequence #status predicted #label SIG
24-96 #product eotaxin #status predicted #label MAT
93 #binding_site carbohydrate (Thr) (covalent) #status predicted

SUMMARY #length 96 #molecular-weight 10695 #checksum 7329

Query Match 76.2%; Score 77; DB 2; Length 96;
Best Local Similarity 81.8%; Pred. No. 6,04e-04;
Matches 9; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Db 71 ICADPKRWQ 81
|||||
Qy 2 ICIDPKRWQ 12

RESULT 24
ENTRY I52322 #type complete
TITLE macrophage inflammatory protein-1alpha - rat
ORGANISM #formal_name Rattus norvegicus #common_name Norway rat
DATE 29-May-1998 #sequence_revision 29-May-1998 #text_change 02-Jul-1998

ACCESSIONS I52322
REFERENCE I52322
#authors Shi, M.M.; Godleski, J.J.; Pauluski, J.D.
#journal Biochem. Biophys. Res. Commun. (1995) 211:289-295
#title Molecular cloning and posttranscriptional regulation of macrophage inflammatory protein-1 alpha in alveolar macrophages.

#cross-references MVID:95298037
#accession I52322
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-92 #label RES
#cross-references EMBL:U22414; NID:9790633; PID:9790633
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 92 #molecular-weight 10335 #checksum 3184

Query Match 75.2%; Score 76; DB 2; Length 92;
Best Local Similarity 66.7%; Pred. No. 9,69e-04;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 71 QICADPKRWQ 82
:::|||||
Qy 1 EICLDPKRWQ 12

RESULT 25
ENTRY JC5295 #type complete
TITLE monocyte chemoattractant protein-2 - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 31-Oct-1997 #sequence_revision 18-Jul-1997 #text_change 31-Oct-1997

ACCESSIONS JC5295
REFERENCE JC5295

RESULT 29
ENTRY
TITLE A32393 #type complete
ALTERNATE_NAMES macrophage inflammatory protein-1-alpha precursor - mouse
heparin-binding chemotaxis protein; IL625B protein;
SC1/MIP-1a; SIS alpha; stem cell inhibitor/macrophage
inflammatory protein 1-alpha; T-cell activation protein
alpha; IT5
#formal_name Mus musculus #common_name house mouse
17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change
08-Sep-1997
S11685; A32393; S04533; A53885; A30552; PS0303; A27596;
I56104
REFERENCE
#authors S11685
#journal Grove, M.; Lowe, S.; Graham, G.; Pragnell, I.; Plumb, M.
#journal Nucleic Acids Res. (1990) 18:5561
#title Sequence of the murine haemopoietic stem cell
inhibitor/macrophage inflammatory protein 1-alpha gene.
#cross-references MUID:91016858
#accession S11685
##molecule_type DNA
##residues 1-92 ##label GRO
##cross-references EMBL:X53372; NID:g54062; PID:g297531
##note the authors' translation of the nucleotide sequence
differs at several positions from the sequence given
REFERENCE
#authors A32393
#journal Kwon, B.S.; Weissman, S.M.
#journal Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1963-1967
#title cDNA sequence of two inducible T-cell genes.
#cross-references MUID:89184547
#accession A32393
##molecule_type mRNA
##residues 1-92 ##label KMO
##cross-references GB:J04491; NID:g201524; PID:g201525
REFERENCE
#authors S04533
Davatelis, G.; Tekamp-Olson, P.; Wolpe, S.D.; Hermesen, K.;
Luedke, C.; Gallegos, C.; Colt, D.; Merryweather, J.;
Cerami, A.
#journal J. Exp. Med. (1988) 167:1939-1944
#title Cloning and characterization of a cDNA for murine macrophage
inflammatory protein (MIP), a novel monokine with
inflammatory and chemokinetic properties.
#cross-references MUID:88258380
#accession S04533
##molecule_type mRNA
##residues 1-48, 'E', 50-90, 'I', 92 ##label DA2
##cross-references EMBL:X12531
##note the authors translated the codon GAG for residue 49 as
Asp and ATT for residue 91 as Asn
the sequence has been corrected in reference A53885
REFERENCE
#authors A53885
Davatelis, G.; Tekamp-Olson, P.; Wolpe, S.D.; Hermesen, K.;
Luedke, C.; Gallegos, C.; Colt, D.; Merryweather, J.;
Cerami, A.
#journal J. Exp. Med. (1989) 170:2189
#journal erratum
#accession A53885
##molecule_type mRNA
##residues 1-92 ##label DAV
##cross-references EMBL:X12531; NID:g53122; PID:g53123
REFERENCE
#authors A30552
Brown, K.D.; Zurawski, S.M.; Mosmann, T.R.; Zurawski, G.
#journal J. Immunol. (1989) 142:679-687
#title A family of small inducible proteins secreted by leukocytes
and members of a new superfamily that includes leukocyte
and fibroblast-derived inflammatory agents, growth factors,
and indicators of various activation processes.
#cross-references MUID:85093958
#accession A30552
##molecule_type mRNA
##residues 1-21, 'L', 23-61, 'A', 63-92 ##label BRO
##cross-references GB:M23447; NID:g533240; PID:g533241
REFERENCE
JL0088

#authors Sherry, B.; Tekamp-Olson, P.; Gallegos, C.; Bauer, D.;
Davatelis, G.; Wolpe, S.D.; Mastatz, F.; Colt, D.; Cerami,
A.
#journal J. Exp. Med. (1988) 168:2251-2259
#title Resolution of the two components of macrophage inflammatory
protein 1, and cloning and characterization of one of those
components, macrophage inflammatory protein 1 beta.
#cross-references MUID:85067830
#accession PS0303
##molecule_type mRNA
##residues 24-33, 'XX', 36-54 ##label SHE
REFERENCE
#authors A27596
Wolpe, S.D.; Davatelis, G.; Sherry, B.; Beutler, B.; Hesse,
D.G.; Nguyen, H.T.; Moldaver, L.L.; Nathan, C.F.; Lowry,
S.F.; Cerami, A.
#journal J. Exp. Med. (1988) 167:570-581
#title Macrophages secrete a novel heparin-binding protein with
inflammatory and neutrophil chemokinetic properties.
#cross-references MUID:88154745
#accession A27596
##molecule_type protein
##residues 24-33, 'XX', 36-42 ##label WOL
26-Met, 30-Pro, and 39-Thr were also found
REFERENCE
#note I56104
#authors Widmer, U.; Yang, Z.; van Deventer, S.; Manogue, K.R.;
Sherry, B.; Cerami, A.
#journal J. Immunol. (1991) 146:4031-4040
#title Genomic structure of murine macrophage inflammatory
protein-1-alpha and conservation of potential regulatory
sequences with a human homolog, LD78.
#cross-references MUID:91237116
#accession I56104
##status preliminary; translated from GB/EMBL/DBJ
##molecule_type DNA
##residues 1-92 ##label RES
##cross-references GB:M73061; NID:g199694; PID:g199695
COMMENT This protein is a monokine.
GENETICS
#introns 23/3; 26/1; 63/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS heparin binding
FEATURE
1-23
24-92
#domain signal sequence #status predicted #label SIG
#product macrophage inflammatory protein #status
experimental #label MAT
SUMMARY #length 92 #molecular_weight 10345 #checksum 5009
Query Match 68.3%; Score 69; DB 2; Length 92;
Best Local Similarity 58.3%; Pred. No. 2,44e-02;
Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;
DB 71 QICADSKETWYQ 82
QY 1 EICIDPKRKWYQ 12
RESULT 30
ENTRY S07723 #type complete
TITLE immediate-early serum-responsive protein JE - rat
ALTERNATE_NAMES monocyte chemoattractant protein-1
ORGANISM #formal_name Rattus norvegicus #common_name Norway rat
DATE 29-Jan-1993 #sequence_revision 29-Jan-1993 #text_change
08-Sep-1997
S07723; JN0128
REFERENCE
#authors S07723
Timmers, H.T.M.; Pronk, G.J.; Bos, J.L.; van der Eb, A.J.
#journal Nucleic Acids Res. (1990) 18:23-34
#title Analysis of the rat JE gene promoter identifies an AP-1
binding site essential for basal expression but not for TPA
induction.
#cross-references MUID:90174947
#accession S07723
##molecule_type DNA

```
##residues 1-148 #label TIM
##cross-references EMBL:X17053; NID:g55530; PID:g55531
REFERENCE JN0128
#authors Yoshimura, T.; Takeya, M.; Takahashi, K.
#journal Biochem. Biophys. Res. Commun. (1991) 174:504-509
#title Molecular cloning of rat monocyte chemoattractant protein-1
(MCP-1) and its expression in rat spleen cells and tumor
cell lines
#cross-references MUID:91128376
#accession JN0128
##molecule_type mRNA
##residues 1-148 #label YOS
##cross-references GB:M57441; NID:g205333; PID:g205334
##experimental_source spleen cells
##note the authors translated the codon GAA for residue 62 as
Lys and GCT for residue 63 as Leu

GENETICS
#introns 26/1; 65/2
CLASSIFICATION #superfamily macrophage inflammatory protein
FEATURE
1-23 #domain signal sequence #status predicted #label SIG\
24-148 #product immediate-early serum-responsive protein JE
#status predicted #label MAT
SUMMARY #length 148 #molecular-weight 16460 #checksum 4876

Query Match 68.3%; Score 69; DB 2; Length 148;
Best Local Similarity 66.7%; Pred. No. 2.44e-02;
Matches 8; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Db 73 EICADPNKRWVQ 84
||| ||| |||
QY 1 EICDPPKRWVQ 12

Search completed: Thu Apr 1 07:35:21 1999
Job time : 17 secs.
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97 50 49.5 467 1 VG3H YEAST HYPOTHETICAL 54.5 KD P 2.84e+01
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 99 50 556 1 NUMB_DROME NUMB PROTEIN. 2.84e+01
 100 50 49.5 1128 1 MEM2_RAT MEMBRANE-ASSOCIATED PR 2.84e+01

ALIGNMENTS

RESULT 1
 ID IL8_SHEEP STANDARD; PRT: 101 AA.
 AC P36925;
 DT 01-JUN-1994 (REL. 29, LAST SEQUENCE UPDATE)
 DT 01-JUN-1994 (REL. 32, LAST SEQUENCE UPDATE)
 DE INTERLEUKIN-8 PRECURSOR (IL-8).
 GN IL8.
 OS OVIS ARIES (SHEEP).
 OC EURAROTIA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 95121931.
 RA LEGASTELOIS I., GREENLAND T., ARNAUD P., MORNEX J.F., CORDIER G.;
 RL GENE 150:367-369(1994).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 95137691.
 RA SHOW H.F., YOSHIMURA T., WOOD P.R., COLDITZ I.G.;
 RL IMMUNOL. CELL BIOL. 72:398-405(1994).
 CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
 BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
 CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
 CC RESPONSE TO AN INFLAMMATORY STIMULUS.
 CC -1- SUBUNIT: HOMODIMER.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 C-X-C) (CHEMOKINE CXC).
 DR EMBL: X78306; G463254; -;
 DR EMBL: S74436; G786591; -;
 DR PTR: S42496; S42496.
 DR HSSP: P10145; 31L8.
 DR PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
 KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 22 BY SIMILARITY.
 FT CHAIN 23 101 INTERLEUKIN-8.
 FT DISULFID 34 61 BY SIMILARITY.
 FT DISULFID 36 77 BY SIMILARITY.
 SQ SEQUENCE 101 AA; 11292 MW; 5A574527 CRC32;
 Query Match 94.1%; Score 95; DB 1; Length 101;
 Best Local Similarity 83.3%; Pred. No. 2,66e-09;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
 Db 75 EVCLDPKRWQ 86
 QY 1 EICLDPKRWQ 12
 RESULT 2
 ID IL8_CANFA STANDARD; PRT: 101 AA.
 AC P41324;
 DT 01-FEB-1995 (REL. 31, CREATED)
 DT 01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
 DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
 DE INTERLEUKIN-8 PRECURSOR (IL-8).
 GN IL8.
 OS CANIS FAMILIARIS (DOG).
 OC EURAROTIA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; CARNIVORA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 94010328.
 RA ISHIKAWA J., SUZUKI S., HOTTA K., HIROTA Y., MIZUNO S., SUZUKI K.;
 RL GENE 131:305-306(1993).

RN [2]
 RP SEQUENCE FROM N.A.
 RC TISSUE-LYMPH NODE;
 RX MEDLINE; 95127913.
 RA MATSUMOTO Y., MOHAMED A., ONODERA T., KATO H., OHASHI T.,
 RA GOITSUKA R., TSUJIMOTO H., HASEGAWA A., FURUSAWA S., YOSHITARA K.,
 RA ISHIKAWA J., HOTTA K., SUZUKI K., HIROTA Y.;
 RL CYTOKINE 6:455-461(1994).
 RN [3]
 RP SEQUENCE FROM N.A.
 RC STRAIN-MONGREL; TISSUE-JUGULAR VEIN;
 RX MEDLINE; 95114148.
 RA KIKIENKA G.L., SMITH W.C., TAROSA G.J., MANNING A.M.,
 RA MENDOZA L.H., DALY T.J., HUGHES B.J., YOKER K.A., HAWKINS H.K.,
 RA MICHAEL L.H., ROT A., ENTMAN M.L.;
 RL J. CLIN. INVEST. 95:89-103(1994).
 CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
 BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
 CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
 CC RESPONSE TO AN INFLAMMATORY STIMULUS.
 CC -1- SUBUNIT: HOMODIMER.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 C-X-C) (CHEMOKINE CXC).
 DR EMBL: D28772; G517100; -;
 DR EMBL: D14285; G475152; -;
 DR EMBL: U10308; G607814; -;
 DR PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
 KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 22 BY SIMILARITY.
 FT CHAIN 23 101 INTERLEUKIN-8.
 FT DISULFID 34 61 BY SIMILARITY.
 FT DISULFID 36 77 BY SIMILARITY.
 SQ SEQUENCE 101 AA; 11280 MW; 7C49D62D CRC32;
 Query Match 94.1%; Score 95; DB 1; Length 101;
 Best Local Similarity 83.3%; Pred. No. 2,66e-09;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
 Db 75 EVCLDPKRWQ 86
 QY 1 EICLDPKRWQ 12
 RESULT 3
 ID IL8_PIG STANDARD; PRT: 103 AA.
 AC P26894; P22951;
 DT 01-AUG-1991 (REL. 19, CREATED)
 DT 01-AUG-1992 (REL. 23, LAST SEQUENCE UPDATE)
 DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
 DE INTERLEUKIN-8 PRECURSOR (IL-8) (ALVEOLAR MACROPHAGE CHEMOTACTIC FACTOR
 DE I) (AMCF-1).
 GN IL8.
 OS SUS SCROFA (PIG).
 OC EURAROTIA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 94103307.
 RA LIN G., PEARSON A.E., SCAMURRA R.W., ZHOU Y., BAARSCH M.J.,
 RA WEISS D.J., MURTAUGH M.P.;
 RL J. BIOL. CHEM. 269:77-85(1994).
 RN [2]
 RP SEQUENCE FROM N.A.
 RA SANJAWALA M.;
 RL SUBMITTED (JUL-1991) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [3]
 RP SEQUENCE FROM N.A., AND SEQUENCE OF 26-45.
 RC TISSUE-LUNG;
 RX MEDLINE; 93041741.
 RA GOODMAN R.B., FOSTER D.C., MATHEWS S.L., OSBORN S.G., KUIPERS J.L.,
 RA FORSTROM J.W., MARTIN T.R.;
 RL BIOCHEMISTRY 31:10483-10490(1992).
 RN [4]

RP REVISION TO 23.
RA GOODMAN R.B.:
RL SUBMITTED (MAR-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RN (5)
RC SEQUENCE OF 26-45.
RP STRAIN-YORKSHIRE:
RX MEDLINE: 91217086.
RA GOODMAN R.B., FORSTROM J.W., OSBORN S.G., CHI E.Y., MARTIN T.R.:
RL J. BIOL. CHEM. 266:8455-8463(1991).
CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
RESPONSE TO AN INFLAMMATORY STIMULUS.
CC -1- SUBUNIT: HOMODIMER.
CC -1- TISSUE SPECIFICITY: ALVEOLAR MACROPHAGES.
CC -1- INDUCTION: BY LIPOPOLYSACCHARIDE.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
C-X-C) (CHEMOKINE CXCL).
CC EMBL: M86923; G164521; -.
DR EMBL: X61151; G516197; -.
DR EMBL: M99367; G1235612; -.
DR PIR: A44253; A44253.
DR PIR: A39819; A39819.
DR HSSP: P10145; 3118.
DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 25
FT CHAIN 1 25
FT DISULFID 26 103 INTERLEUKIN-8.
FT DISULFID 34 61 BY SIMILARITY.
FT DISULFID 36 77 BY SIMILARITY.
FT CONFLICT 33 34 RC -> CR (IN REF. 5).
FT CONFLICT 87 87 K -> KR (IN REF. 2).
SQ SEQUENCE 103 AA; 11633 MW; A012D95D CRC32;
Query Match 94.1%; Score 95; DB 1; Length 103;
Best Local Similarity 83.3%; Pred. No. 2.66e-09;
Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
Db 75 EYCLNPKKRWQ 86
1 EYCLNPKKRWQ 12
RESULT 4
ID IL8_BOVIN STANDARD; PRT; 101 AA.
AC P79255;
DT 01-NOV-1997 (REL. 35, CREATED)
DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8).
GN IL8.
OS BOS TAURUS (BOVINE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
CC EUTHERIA; ARTIODACTYLA.
EN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 96304552.
RA MORSEY M.A., POWOYCH Y., KOMALSKI J., GERLACH G., GODSON D.,
RA CAMPOS M., BABIUK L.A.:
RL MICROR. PATHOG. 20:203-212(1996).
CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
RESPONSE TO AN INFLAMMATORY STIMULUS (BY SIMILARITY).
CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
C-X-C) (CHEMOKINE CXCL).
CC EMBL: S82598; G169354; -.
DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 22
FT CHAIN 23 101 BY SIMILARITY.
FT DISULFID 34 61 INTERLEUKIN-8.
FT DISULFID 36 77 BY SIMILARITY.
FT CONFLICT 50 50 K -> I (IN REF. 2).
SQ SEQUENCE 101 AA; 11402 MW; CB32CC30 CRC32;
Query Match 91.1%; Score 92; DB 1; Length 101;
Best Local Similarity 83.3%; Pred. No. 1.51e-08;
Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
Db 75 EYCLNPKKRWQ 86
1 EYCLNPKKRWQ 12

FT DISULFID 36 77 BY SIMILARITY.
SQ SEQUENCE 101 AA; 11291 MW; 0B39C526 CRC32;
Query Match 91.1%; Score 92; DB 1; Length 101;
Best Local Similarity 75.0%; Pred. No. 1.51e-08;
Matches 9; Conservative 3; Mismatches 0; Indels 0; Gaps 0;
Db 75 EYCLNPKKRWQ 86
1 EYCLNPKKRWQ 12
RESULT 5
ID IL8_RABIT STANDARD; PRT; 101 AA.
AC P19874;
DT 01-FEB-1991 (REL. 17, CREATED)
DT 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8) (NEUTROPHIL ATTRACTANT/ACTIVATION
PROTEIN-1) (NAP-1) (PERMEABILITY FACTOR 1) (RFP1).
GN IL8.
OS ORYCTOLAGUS CUNICULUS (RABBIT).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
CC EUTHERIA; LAGOMORPHA.
EN [1]
RP SEQUENCE FROM N.A.
RX STRAIN-NEW ZEALAND WHITE; TISSUE-SPLEEN;
RX MEDLINE: 91225489.
RA YOSHIMURA T., YUHKI N.;
RL J. IMMUNOL. 146:3483-3488(1991).
RN [2]
RP SEQUENCE OF 23-53.
RC STRAIN-NEW ZEALAND WHITE; TISSUE-PERITONEAL CAVITY;
RX MEDLINE: 91058518.
RA BEAUBIEN B.C., COLLINS P.D., JOSE P.J., TOTTY N.F., HSUAN J.,
RA WATERFIELD M.D., WILLIAMS T.J.:
RL BIOCHEM. J. 271:797-801(1990).
CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
RESPONSE TO AN INFLAMMATORY STIMULUS.
CC -1- SUBUNIT: HOMODIMER.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
C-X-C) (CHEMOKINE CXCL).
CC EMBL: M57439; G165553; -.
DR PIR: S13052; S13052.
DR HSSP: P10145; 3118.
DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 22
FT CHAIN 23 101 INTERLEUKIN-8.
FT DISULFID 34 61 BY SIMILARITY.
FT DISULFID 36 77 BY SIMILARITY.
FT CONFLICT 50 50 K -> I (IN REF. 2).
SQ SEQUENCE 101 AA; 11402 MW; CB32CC30 CRC32;
Query Match 91.1%; Score 92; DB 1; Length 101;
Best Local Similarity 83.3%; Pred. No. 1.51e-08;
Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
Db 75 EYCLNPKKRWQ 86
1 EYCLNPKKRWQ 12
RESULT 6
ID MCP1_HUMAN STANDARD; PRT; 99 AA.
AC P13500;
DT 01-JAN-1990 (REL. 13, CREATED)
DT 01-JAN-1990 (REL. 13, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE CHEMOTACTIC
AND ACTIVATING FACTOR) (MCAF) (MONOCYTE SECRETORY PROTEIN JE)

(MONOCYTE CHEMOTACTANT PROTEIN 1) (HC11) (SMALL INDUCIBLE CYTOKINE
 DE A2)
 GN SCYA2 OR MCP1.
 OS HOMO SAPIENS (HUMAN).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUKARYOTA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 89153605.
 RA FORUANI Y., NOMURA H., NOTAKE M., OYAMADA Y., FUKUI T., YAMADA M.,
 RA IARSEN C.G., OPENHEIM J.J., MATSUSHIMA K.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 159:249-255(1989).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 90097880.
 RA ROLLINS B.J., STIER P., ERNST T., WONG G.G.;
 RL MOL. CELL. BIOL. 9:4687-4695(1989).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 89153605.
 RA YOSHIMURA T., YUHKI N., MOORE S.K., APPELLA E., LERMAN M.I.,
 RA LEONARD E.J.;
 RL FEBS LETT. 244:487-493(1989).
 RN [4]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 90290466.
 RA SHYX Y.J., LI Y.S., KOLATUKUDY P.E.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 169:346-351(1990).
 RN [5]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 91207938.
 RA CHANG H.C., HSU F., FREEMAN G.J., GRIFFIN J.D., REINHERZ E.L.;
 RL INT. IMMUNOL. 1:388-399(1989).
 RN [6]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 94150478.
 RA LI Y.S., SHYX Y.J., WRIGHT J.G., VALENTE A.J., CORNHILL J.F.,
 RA KOLATUKUDY P.E.;
 RL MOL. CELL. BIOCHEM. 126:61-68(1993).
 RN [7]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 92095166.
 RA YOSHIMURA T., LEONARD E.J.;
 RL ADV. EXP. MED. BIOL. 305:47-56(1991).
 RN [8]
 RP SEQUENCE OF 24-99.
 RX MEDLINE; 89184525.
 RA ROBINSON E.A., YOSHIMURA T., LEONARD E.J., TANAKA S., GRIFFIN P.R.,
 RA SHABANOWITZ J., HUNT D.F., APPELLA E.;
 RL PROC. NATL. ACADE. SCI. U.S.A. 86:1850-1854(1989).
 RN [9]
 RP SEQUENCE OF 29-53 AND 82-92.
 RX MEDLINE; 90211336.
 RA DECOCK B., CONINGS R., LENAERTS J.-P., BILIAU A., VAN DAMME J.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 167:904-909(1990).
 RN [10]
 RP 3D-STRUCTURE MODELLING.
 RX MEDLINE; 91312872.
 RA GRONENBORN A.M., CLORE G.M.;
 RL PROTEIN ENG. 4:263-269(1991).
 RN [11]
 RP X-RAY CRYSTALLOGRAPHY (1.85 ANGSTROMS).
 RX MEDLINE; 97143315.
 RA LUBKOWSKI J., BUJACZ G., DOMAILLE P.J., HANDEL T.M., WLODANER A.;
 RL NAT. STRUCT. BIOL. 4:64-69(1997).
 RN [12]
 RP STRUCTURE BY NMR.
 RX MEDLINE; 96234959.
 RA HANDEL T.M., DOMAILLE P.J.;
 RL BIOCHEMISTRY 35:6569-6584(1996).
 RN [13]
 RP EFFECT OF DELETION OF N-TERMINAL RESIDUES.
 RX MEDLINE; 96195223.

RA WEBER M., UGUCCIONI M., BAGGIOLINI M., CLARK-LEWIS I., DAHINDEN C.A.;
 RL J. EXP. MED. 183:681-685(1996).
 RN [14]
 RP MUTAGENESIS.
 RX MEDLINE; 94253189.
 RA ZHANG Y.J., RUTLEDGE B.J., ROLLINS B.J.;
 RL J. BIOL. CHEM. 269:15918-15924(1994).
 RN [15]
 RP SUBUNIT.
 RX MEDLINE; 97053697.
 RA KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.;
 RL FEBS LETT. 395:277-282(1996).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND BASOPHILS
 CC BUT NOT NEUTROPHILS OR EOSINOPHILS. AUGMENTS MONOCYTE ANTI-TUMOR
 CC ACTIVITY. HAS BEEN IMPLICATED IN THE PATHOGENESIS OF DISEASES
 CC CHARACTERIZED BY MONOCYTIC INFILTRATES, LIKE PSORIASIS, RHEUMATOID
 CC ARTHRITIS OR ATHEROSCLEROSIS. MAY BE INVOLVED IN THE RECRUITMENT
 CC OF MONOCYTES INTO THE ARTERIAL WALL DURING THE DISEASE PROCESS OF
 CC ATHEROSCLEROSIS.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM.
 CC -1- PTM: PROCESSING AT THE N-TERMINUS CAN REGULATE RECEPTOR AND TARGET
 CC CELL SELECTIVITY. DELETION OF THE AMINO-TERMINAL RESIDUE CONVERTS
 CC IT FROM AN ACTIVATOR OF BASOPHIL TO AN EOSINOPHIL CHEMOTACTANT.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL; M31625; G386961; -;
 DR EMBL; M30816; G386961; JOINED.
 DR EMBL; M31625; G386961; JOINED.
 DR EMBL; M24545; G307163; -;
 DR EMBL; M28226; G338009; -;
 DR EMBL; X14768; G34514; -;
 DR EMBL; M37719; G487124; -;
 DR EMBL; M28225; G338007; -;
 DR EMBL; M28223; G338007; JOINED.
 DR EMBL; M28224; G338007; JOINED.
 DR EMBL; S69738; G545465; -;
 DR EMBL; S71513; G240868; -;
 DR EMBL; A17786; G641145; -;
 DR PIR; A35474; A35474.
 DR PIR; S03339; S03339.
 DR PDB; IDOK; 12-MAR-97.
 DR PDB; IDOL; 12-MAR-97.
 DR PDB; IDOM; 14-OCT-96.
 DR PDB; IDON; 14-OCT-96.
 DR PDB; IMCA; 15-OCT-94.
 DR MIM; 158105; -;
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; 3D-STRUCTURE.
 FT STGNL 1 23
 FT CHAIN 24 99
 FT MOD_RES 24 24
 FT DISULFID 34 59
 FT CARBOHYD 35 75
 FT VARIANT 76 76
 FT MUTAGEN 24 24
 FT MUTAGEN 25 32
 FT MUTAGEN 24 85
 FT MUTAGEN 24 91
 FT MUTAGEN 26 26
 FT MUTAGEN 29 29
 FT MUTAGEN 47 47
 FT MUTAGEN 50 50
 FT MUTAGEN 51 51
 FT MUTAGEN 53 53
 FT MUTAGEN 91 91
 SO SEQUENCE 99 AA; 11025 MM; 53558695 CRC32;
 Query Match 89.18; Score 90; DB 1; Length 99;
 Best Local Similarity 91.78; Pred. No. 4; 74e-08;
 Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 73 EICADPRQKWVQ 84

OY 1 EICLDPKQKRWQ 12

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RESULT 7
AC MCP1_CANFA STANDARD: PRT: 101 AA.
AC P52203:
DT 01-OCT-1996 (REL. 34, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
DE CHEMOTACTIC PROTEIN-1).
GN SCV22 OR MCP1.
OS CANIS FAMILIARIS (DOG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; CARNIVORA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 97176620.
RA KUMAR A.G., BALANTYNE C.M., MICHAEL L.H., KUKIELKA G.L., YOCKER K.A.,
RA LINSEY M.L., HARKINS H.K., BIRDSALL H.H., MACKAY C.R., IAROSA G.J.,
RA ROSSEN R.D., SMITH C.W., ENTMAN M.L.;
RL CIRCULATION 95:693-700(1997).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS. IMPORTANT FACTOR IN THE COURSE OF THE INFLAMMATORY
CC REACTION TO REPERFUSION OF THE PREVIOUSLY ISCHEMIC MYOCARDIUM.
CC MAY PLAY A SIGNIFICANT ROLE IN MONOCYTE TRAFFICKING INTO THE
CC REPERFUSED MYOCARDIUM.
CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC -1- INDUCTION: BY TNF-ALPHA.
CC -1- TISSUE SPECIFICITY: ENDOTHELIUM OF SMALL VEINS AND INTRAPASCICULAR
CC VEINS, AND INFILTRATING LEUKOCYTES.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: U29653; G1144186; -.
DR PROSITE: PS00472; SMALL CYTOKINES, CC: 1.
DE MONOCYTE CHEMOTACTIC PROTEIN 1.
GN CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23
FT CHAIN 24 101
FT MOD_RES 24 24
FT DISULFID 34 59
FT DISULFID 35 75
FT SEQUENCE 101 AA; 11121 MW; A7075B14 CRC32;
SQ

Query Match
Best Local Similarity 91.7%; Score 90; DB 1; Length 101;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 73 EICADPKQKRWQ 84
OY 1 EICLDPKQKRWQ 12

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RC TISSUE-BRAIN;
RA ZACH O.R.F.;
RL SUBMITTED (JUL-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS.
CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: 248479; G683717; -.
DR EMBL: X79416; G872313; -.
DR PROSITE: PS00472; SMALL CYTOKINES, CC: 1.
GN CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23
FT CHAIN 24 99
FT MOD_RES 24 24
FT DISULFID 34 59
FT DISULFID 35 75
FT SEQUENCE 99 AA; 10976 MW; EC3AFB4 CRC32;
SQ

Query Match
Best Local Similarity 88.1%; Score 89; DB 1; Length 99;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 73 EICADPKQKRWQ 84
OY 1 EICLDPKQKRWQ 12

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RESULT 9
AC MCP2_BOVIN STANDARD: PRT: 99 AA.
AC Q09141:
DT 01-NOV-1995 (REL. 32, CREATED)
DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
DE CHEMOTACTIC PROTEIN 2).
GN SCV48 OR MCP2.
OS BOS TAURUS (BOVINE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 94114084.
RA WEMPE F., HANES J., SCHEIT K.H.;
RL DNA CELL BIOL. 13:1-8(1994).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN
CC CAN BIND HEPARIN.
CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: S67954; E11856; -.
DR EMBL: S67956; G544997; -.
DR PROSITE: PS00472; SMALL CYTOKINES, CC: 1.
GN CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23
FT CHAIN 24 99
FT MOD_RES 24 24
FT DISULFID 34 59
FT DISULFID 35 75
FT SEQUENCE 99 AA; 10900 MW; 9BACD26 CRC32;
SQ

Query Match
Best Local Similarity 86.1%; Score 87; DB 1; Length 99;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 73 DVCADPKQKRWQ 84
OY 1 EICLDPKQKRWQ 12

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RESULT 10

ID MCP4 HUMAN STANDARD: PRT: 98 AA.
 AC Q99616; 15-JUL-1998 (REL. 36, CREATED)
 DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 4 PRECURSOR (MCP-4) (MONOCYTE
 DE CHEMOATTRACTANT PROTEIN 4) (CK-BETA10) (NCC-1).
 GN SCY13 OR MCP4 OR NCCL.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE=HEART;
 RX MEDLINE: 97113354.
 RA GARCIA-ZEEDA E.A., COMBADIERE C., ROTHENBERG M.E., SARAFI M.N.,
 RA LAVIGNE F., HAMID O., MURPHY P.M., LUSTER A.D.;
 RL J. IMMUNOL. 157:5613-5626(1996).
 RN [2]
 RP SEQUENCE FROM N.A., AND SEQUENCE OF 17-98.
 RC TISSUE=FETAL;
 RX MEDLINE: 96235049.
 RA UGCCIONI M., LOETSCHER P., FORSSMANN U., DEMALD B., LI H., LIMA S.H.,
 RA LI Y., KREIDER B., GAROTTA G., THELEN M., BAGGIOLINI M.;
 RL J. EXP. MED. 183:2379-2384(1996).
 RN [3]
 RP SEQUENCE FROM N.A., AND SEQUENCE OF 22-33.
 RC TISSUE=FETAL;
 RX MEDLINE: 97341179.
 RA BERKHOUT T.A., SARAU H.M., MOORES K., WHITE J.R., ELSHOUBAGY N.,
 RA APPELBAUM E., REAPE T.J., BRAUNER M., MAKIWA J., FOLEY J.J.,
 RA SCHMIDT D.B., IMBURGIA C., MACNULTY D., MATTHEWS J., O'DONNELL K.,
 RA O'SHANNESSEY D., SCOTT M., GROOT P.H.E., MACPHEE C.;
 RL J. BIOL. CHEM. 272:16404-16413(1997).
 RN [4]
 RP SEQUENCE FROM N.A.
 RA DANTE M., GIBSON A.;
 RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCYTES,
 BASOPHILS AND EOSINOPHILS, BUT NOT NEUTROPHILS. SIGNALS THROUGH
 CCR2B AND CCR3 RECEPTORS. PLAYS A ROLE IN THE ACCUMULATION OF
 LEUKOCYTES AT BOTH SIDES OF ALLERGIC AND NONALLERGIC INFLAMMATION.
 MAY BE INVOLVED IN THE RECRUITMENT OF MONOCYTES INTO THE ARTERIAL
 WALL DURING THE DISEASE PROCESS OF ARTERIOSCLEROSIS. MAY PLAY A
 ROLE IN THE MONOCYTE ATTRACTION IN TISSUES CHRONICALLY EXPOSED TO
 EXOGENOUS PATHOGENS.
 CC -1- MASS SPECTROMETRY: MW-9314; MW-ERR-30; METHOD=MALDI; RANGE=17-98.
 CC -1- MASS SPECTROMETRY: MW-8760; MW-ERR-30; METHOD=MALDI; RANGE=22-98.
 CC -1- MASS SPECTROMETRY: MW-8575; MW-ERR-30; METHOD=MALDI; RANGE=24-98.
 CC -1- INDUCTION: BY INTERLEUKIN-1 AND TNF-ALPHA.
 CC -1- TISSUE SPECIFICITY: WIDELY EXPRESSED. FOUND IN SMALL INTESTINE,
 THYMUS, COLON, LUNG, TRACHEA, STOMACH AND LYMPH NODE. LOW LEVELS
 SEEN IN THE PULMONARY ARTERY SMOOTH MUSCLE CELLS.
 CC -1- THIS PROTEIN CAN BIND HEPARIN.
 CC -1- PFM: ONE MAJOR ISOFORM MCP-4, AND TWO MINOR ISOFORMS (LA)MCP-4 AND
 (LA)MCP-4 ARE PRODUCED BY DIFFERENTIAL SIGNAL CLEAVAGE.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 C-C) (CHEMOKINE CC).
 CC EMBL: U46767; G1732123; -;
 DR EMBL: AC002482; G2340091; -;
 DR MIM: 601391; -;
 DR PROSITE: PS00472; SMALL CYTOKINES.CC: 1.
 KM CYTOKINE; CHEMOTAXIS; SIGNAL; GLYCOPROTEIN; INFLAMMATORY RESPONSE.
 FT SIGNAL 1 23
 FT CHAIN 1 98
 FT MOD_RES 24 24 MONOCYTE CHEMOTACTIC PROTEIN 4.
 FT DISULFID 34 58 PYRROLIDONE CARBOXYLIC ACID.
 FT DISULFID 35 74 BY SIMILARITY.
 FT CARBOHYD 29 29 BY SIMILARITY.
 FT SEQUENCE 98 AA: 10986 MW: DF52F6EC CRC32;
 Query Match 85.1%; Score 86; DB 1; Length 98;

Best Local Similarity 83.3%; Pred. No. 4,55e-07;
 Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
 Db 72 EICADPKREKVVQ 83
 Oy 1 EICADPKRKVVQ 12
 RESULT 11
 ID IL8 HUMAN STANDARD: PRT: 99 AA.
 AC P10145;
 DT 01-MAR-1989 (REL. 10, CREATED)
 DT 01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE INTERLEUKIN-8 PRECURSOR (IL-8) (MONOCYTE-DERIVED NEUTROPHIL
 DE CHEMOTACTIC FACTOR) (MNCFC) (T-CELL CHEMOTACTIC FACTOR) (NEUTROPHIL-
 DE ACTIVATING PROTEIN 1) (NAP-1) (LYMPHOCYTE-DERIVED NEUTROPHIL-
 DE ACTIVATING FACTOR) (LYNAP) (PROTEIN 3-10C) (NEUTROPHIL-ACTIVATING
 DE FACTOR) (NAF) (GRANULOCYTE CHEMOTACTIC PROTEIN 1) (GCP-1) (EMOCTAKIN).
 GN IL8.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC MEDLINE: 86258376.
 RA MATSUSHIMA K., MORISHITA K., YOSHIMURA T., LAVU S., KOBAYASHI Y.,
 RA LEW W., APPELLA E., KUNG H., LEONARD E.J., OPPENHEIM J.J.;
 RL J. EXP. MED. 167:1883-1893(1988).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC MEDLINE: 87224164.
 RA SCHMIDT J., WEISSMANN C.;
 RL J. IMMUNOL. 139:250-256(1987).
 RN [3]
 RP SEQUENCE FROM N.A.
 RC MEDLINE: 89313739.
 RA KOWALSKI J., DENHARDT D.T.;
 RL MOL. CELL. BIOL. 9:1946-1957(1989).
 RN [4]
 RP SEQUENCE FROM N.A.
 RC MEDLINE: 89309826.
 RA MUKAIDA N., SHIROO M., MATSUSHIMA K.;
 RL J. IMMUNOL. 143:1366-1371(1989).
 RN [5]
 RP SEQUENCE FROM N.A.
 RC ISHIKAWA J.;
 RL SUBMITTED (JAN-1993) TO EMBL/GENBANK/DBJ DATA BANKS.
 CC [6]
 RP SEQUENCE OF 23-46.
 RX MEDLINE: 89246368.
 RA GOLDS E.E., NASON P., NYIKOS P.;
 RL BIOCHEM. J. 259:585-588(1989).
 RN [7]
 RP SEQUENCE OF 23-54.
 RX MEDLINE: 89279141.
 RA SUZUKI K., MIYASAKA H., OTA H., YAMAKAWA Y., TAGAWA M., KURAMOTO A.,
 RA MIZUNO S.;
 RL J. EXP. MED. 169:1895-1901(1989).
 RN [8]
 RP SEQUENCE OF 28-99.
 RX MEDLINE: 88162914.
 RA GREGORY H., YOUNG J., SCHROEDER J.M., MROWIETZ U., CHRISTOPHERS E.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 151:883-890(1988).
 RN [9]
 RP SEQUENCE OF 28-59.
 RX MEDLINE: 88106502.
 RA WALZ A., PEVERI P., ASCHAUER H., BAGGIOLINI M.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 149:755-761(1987).
 RN [10]
 RP SEQUENCE OF 28-69.
 RX MEDLINE: 88097462.
 RA YOSHIMURA T., MATSUSHIMA K., TANAKA S., ROBINSON E.A., APPELLA E.,

RA OPPENHEIM J.J., LEONARD E.J.;
 RL PROC. NATL. ACAD. SCI. U.S.A. 84:9233-9237(1987).
 RN [11]
 RP STRUCTURE BY NMR.
 RX MEDLINE: 90234679.
 RA CLORE G.M., APPELLA E., YAMADA M., MATSUSHIMA K., GRONENBORN A.M.;
 RL BIOCHEMISTRY 29:1689-1696(1990).
 RN [12]
 RP X-RAY CRYSTALLOGRAPHY (1.6 ANGSTROMS).
 RX MEDLINE: 90216714.
 RA BALDWIN E.T., FRANKLIN K.A., APPELLA E., YAMADA M., MATSUSHIMA K.,
 WLADAMER A., WEBER I.T.;
 RL J. BIOL. CHEM. 265:6851-6853(1990).
 RN [13]
 RP X-RAY CRYSTALLOGRAPHY, AND STRUCTURE BY NMR.
 RX MEDLINE: 91171286.
 RA CLORE G.M., GRONENBORN A.M.;
 RL J. MOL. BIOL. 217:611-620(1991).
 RN [14]
 RP X-RAY CRYSTALLOGRAPHY (1.6 ANGSTROMS), AND STRUCTURE BY NMR.
 RX MEDLINE: 91105536.
 RA BALDWIN E.T., WEBER I.T., ST CHARLES R., XUAN J.C., APPELLA E.,
 YAMADA M., MATSUSHIMA K., EDWARDS B.F., CLORE G.M., GRONENBORN A.M.;
 RL PROC. NATL. ACAD. SCI. U.S.A. 88:502-506(1991).
 RN [15]
 RP N-TERMINAL FORMS.
 RX MEDLINE: 91006326.
 RA VAN DAMME J., RAMPART M., CONING R., DECOCK B., VAN OSSELAER N.,
 WILLEMS J., BILLIAU A.;
 RL EUR. J. IMMUNOL. 20:2113-2118(1990).
 RN [16]
 RP N-TERMINAL FORMS.
 RX MEDLINE: 89231715.
 RA VAN DAMME J., VAN BEUMEN J., CONINGS R., DECOCK B., BILLIAU A.;
 RL EUR. J. BIOCHEM. 181:337-344(1989).
 RN [17]
 RP SYNTHESIS OF 28-99.
 RX MEDLINE: 91175767.
 RA CLARK-LEWIS I., MOSE B., WALZ A., BAGGIOLINI M., SCOTT G.J.,
 AEBERSOLD R.;
 RL BIOCHEMISTRY 30:3128-3135(1991).
 RN [18]
 RP REVIEW.
 RX MEDLINE: 92347562.
 RA BAGGIOLINI M., CLARK-LEWIS I.;
 RL FEBS LETT. 307:97-101(1992).
 CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
 BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
 CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
 CC RESPONSE TO AN INFLAMMATORY STIMULUS.
 CC -1- SUBUNIT: HOMODIMER.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 CC C-X-C) (CHEMOKINE CXC).
 CC EMBL: Y00787; G34519; -;
 DR EMBL: M17017; G179580; -;
 DR EMBL: M26383; G188628; -;
 DR EMBL: M28130; G186368; -;
 DR EMBL: D14283; G219916; -;
 DR PIR: A37034; A37034.
 DR PIR: S03975; S03975.
 DR PIR: S04216; S04216.
 DR PDB: 1IL8; 15-JAN-91.
 DR PDB: 2IL8; 15-JAN-91.
 DR PDB: 3IL8; 15-OCT-92.
 DR PDB: 1ICW; 12-MAR-97.
 DR PDB: 1IKL; 15-OCT-95.
 DR PDB: 1IKM; 15-OCT-95.
 DR MIM: 146930; -;
 DR PROSITE: PS00471; SMALL CYTOKINES_CXC; 1.
 KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL; 3D-STRUCTURE.
 FT SIGNAL 1 22
 FT CHAIN 23 99 INTERLEUKIN-8.
 FT PROPEP 23 30 ONE OR MORE OF THESE RESIDUES ARE MISSING

FT DISULFID 34 61
 FT DISULFID 36 77
 FT CONFLICT 53 53 R -> L (IN REF. 7).
 FT HELIX 46 48
 FT STRAND 49 55
 FT STRAND 58 58
 FT TURN 59 60
 FT STRAND 61 61
 FT STRAND 65 70
 FT TURN 71 72
 FT STRAND 75 78
 FT TURN 80 81
 FT HELIX 83 97
 FT TURN 98 98
 SQ SEQUENCE 99 AA; 11098 MW; 89D1891F CRC32;
 Query Match 85.1%; Score 86; DB 1; Length 99;
 Best Local Similarity 75.0%; Pred. No. 4.55e-07;
 Matches 9; Conservative 3; Mismatches 0; Indels 0; Gaps 0;
 Db 75 EICLDPKKNWQ 86
 QY 1 EICLDPKKNWQ 12
 RESULT 12
 ID IL8_CAVPO STANDARD; PRT; 101 AA.
 AC P49113;
 DT 01-FEB-1996 (REL. 33, CREATED)
 DT 01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
 DT 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
 DE INTERLEUKIN-8 PRECURSOR (IL-8) (NEUTROPHIL ATTRACTANT PROTEIN 1)
 DE (NP-1).
 GN IL8.
 OS CAVIA PORCELLUS (GUINEA PIG).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-SPLEEN.
 RX MEDLINE: 94065176.
 RA YOSHIMURA T., JOHNSON D.G.;
 RL J. IMMUNOL. 151:6225-6236(1993).
 CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
 BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
 CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
 CC RESPONSE TO AN INFLAMMATORY STIMULUS (BY SIMILARITY).
 CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 CC C-X-C) (CHEMOKINE CXC).
 CC EMBL: L04986; G459765; -;
 DR PROSITE: PS00471; SMALL CYTOKINES_CXC; 1.
 KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 22
 FT CHAIN 23 101
 FT DISULFID 34 61 INTERLEUKIN-8.
 FT DISULFID 36 77 BY SIMILARITY.
 SQ SEQUENCE 101 AA; 11414 MW; E13FB521 CRC32;
 Query Match 85.1%; Score 86; DB 1; Length 101;
 Best Local Similarity 75.0%; Pred. No. 4.55e-07;
 Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
 Db 75 OLCLDPKKRWQ 86
 QY 1 EICLDPKKNWQ 12
 RESULT 13
 ID MCPA_BOVIN STANDARD; PRT; 99 AA.
 AC P28291;
 DT 01-DEC-1992 (REL. 24, CREATED)

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DE 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1A PRECURSOR (MCP-1A) (MCP-1) (ACIDIC
DE SEMINAL FLUID PROTEIN).
OS BOS TAURUS (BOVINE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLA.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-SEMINAL PLASMA;
RX MEDLINE; 92096117.
RA WEMPE F., HENSCHEN A., SCHEIT K.H.;
RL DNA CELL BIOL. 10:671-679(1991).
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE-SEMINAL PLASMA;
RX MEDLINE; 92181448.
RA WEMPE F., EINSPIERER R., SCHEIT K.H.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 183:232-237(1992).
RN [3]
RP SEQUENCE FROM N.A.
RX MEDLINE; 9438337.
RA WEMPE F., KOHLMANN J.K., SCHEIT K.H.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 202:1272-1279(1994).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL; L32659; G624394; -.
DR EMBL; M84602; G163395; -.
DR PIR; A39296; A39296.
DR PIR; JC2336; JC2336.
DR HSSP; P13500; IMCA.
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL.
FT SIGNAL 1 23 BY SIMILARITY.
FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 1A.
FT MOD_RES 24 24 PYROLIDONE CARBOXYLIC ACID (BY
FT DISULFID 34 59 BY SIMILARITY.
FT DISULFID 35 75 BY SIMILARITY.
FT SEQUENCE 99 AA; 11114 MW; C8F5821D CRC32;
SQ
Query Match 84.2%; Score 85; DB 1; Length 99;
Best Local Similarity 83.3%; Pred. No. 7.97e-07;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
Db 73 ELCDPDKOKWQ 84
QY 1 EICLDPKOKWQ 12
RESULT 14
ID MCP1_RABIT STANDARD; PRT; 125 AA.
AC P28292;
DT 01-DEC-1992 (REL. 24, CREATED)
DT 01-DEC-1992 (REL. 36, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 24, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
OS SCYLAZ.
OC EUCYTOLOGUS CUNICULUS (RABBIT).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; LAGOMORPHA.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-NEW ZEALAND WHITE; TISSUE-SPLEEN;
RX MEDLINE; 91225489.
RA YOSHIMURA T., YUHKI N.;
RL J. IMMUNOL. 146:3483-3488(1991).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS.
CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE

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CC C-C) (CHEMOKINE CC).
DR EMBL; M57440; G163470; -.
DR HSSP; P13500; IMCA.
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
DE MONOCYTE CHEMOTACTIC PROTEIN 1.
OS EUTHERIA; ARTIODACTYLA.
OC EUCYTOLOGUS CUNICULUS (RABBIT).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-LUNG;
RX MEDLINE; 96004658.
RA ROTHENBERG M.E., LUSTER A.D., LEDER P.;
RL PROC. NATL. ACAD. SCI. U.S.A. 92:8960-8964(1995).
RN [2]
RP SEQUENCE FROM N.A.
RC STRAIN-C57BL/6J; TISSUE-LUNG;
RX MEDLINE; 96158746.
RA GONZALO J.-A., JIA G.-Q., AGUIRRE V., FRIEND D., COYLE A.J.,
RA JENKINS N.A., LIN G.-S., KATZ H., LICHTMAN A., COPELAND N.G., KOPE M.,
RA GUTIERREZ-RAMOS J.-C.;
RL IMMUNITY 4:1-14(1996).
CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
CC DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS (A PROMINENT
CC FEATURE OF ALLERGIC INFLAMMATORY REACTIONS), BUT NOT
CC LYMPHOCYTES, MACROPHAGES OR NEUTROPHILS.
CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
CC -1- TISSUE SPECIFICITY: EXPRESSED CONSTITUTIVELY IN THE THYMUS.
CC EXPRESSION INDUCIBLE IN THE LUNG (TYPE I ALVEOLAR EPITHELIAL
CC CELLS), INTESTINE, HEART, SPLEEN, KIDNEY.
CC -1- INDUCTION: BY INTERFERON-GAMMA AND LIPOPOLYSACCHARIDE (LPS).
CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL; U06426; G995911; -.
DR EMBL; U0672; G113937; -.
DR MGI; MGI:103576; SCYAL1.
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
KW INFLAMMATORY RESPONSE.
RN [1]
RP SIGNAL 1 23 POTENTIAL.
FT CHAIN 24 97 EOTAXIN.
FT DISULFID 32 57 BY SIMILARITY.
FT DISULFID 33 73 BY SIMILARITY.
FT SEQUENCE 97 AA; 10893 MW; F85A96BC CRC32;
SQ
Query Match 83.2%; Score 84; DB 1; Length 125;
Best Local Similarity 90.9%; Pred. No. 1.39e-06;
Matches 10; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db 74 ICADPKOKWQ 84
QY 2 EICLDPKOKWQ 12
RESULT 15
ID EOTA_MOUSE STANDARD; PRT; 97 AA.
AC P48298;
DT 01-FEB-1996 (REL. 33, CREATED)
DT 01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-LUNG;
RX MEDLINE; 96004658.
RA ROTHENBERG M.E., LUSTER A.D., LEDER P.;
RL PROC. NATL. ACAD. SCI. U.S.A. 92:8960-8964(1995).
RN [2]
RP SEQUENCE FROM N.A.
RC STRAIN-C57BL/6J; TISSUE-LUNG;
RX MEDLINE; 96158746.
RA GONZALO J.-A., JIA G.-Q., AGUIRRE V., FRIEND D., COYLE A.J.,
RA JENKINS N.A., LIN G.-S., KATZ H., LICHTMAN A., COPELAND N.G., KOPE M.,
RA GUTIERREZ-RAMOS J.-C.;
RL IMMUNITY 4:1-14(1996).
CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
CC DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS (A PROMINENT
CC FEATURE OF ALLERGIC INFLAMMATORY REACTIONS), BUT NOT
CC LYMPHOCYTES, MACROPHAGES OR NEUTROPHILS.
CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
CC -1- TISSUE SPECIFICITY: EXPRESSED CONSTITUTIVELY IN THE THYMUS.
CC EXPRESSION INDUCIBLE IN THE LUNG (TYPE I ALVEOLAR EPITHELIAL
CC CELLS), INTESTINE, HEART, SPLEEN, KIDNEY.
CC -1- INDUCTION: BY INTERFERON-GAMMA AND LIPOPOLYSACCHARIDE (LPS).
CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL; U06426; G995911; -.
DR EMBL; U0672; G113937; -.
DR MGI; MGI:103576; SCYAL1.
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
KW INFLAMMATORY RESPONSE.
RN [1]
RP SIGNAL 1 23 POTENTIAL.
FT CHAIN 24 97 EOTAXIN.
FT DISULFID 32 57 BY SIMILARITY.
FT DISULFID 33 73 BY SIMILARITY.
FT SEQUENCE 97 AA; 10893 MW; F85A96BC CRC32;
SQ

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Query Match 82.2%; Score 83; DB 1; Length 97;
 Best Local Similarity 83.3%; Pred. No. 2,42e-06;
 Matches 10; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Db 71 EICADPKKKWQ 82
 ||| ||| |||
 1 EICLDPKOKWQ 12

RESULT 16
 ID BOTA_RAT STANDARD; PRT; 97 AA.
 AC P97545; 008780;
 DT 15-JUL-1998 (REL. 36, CREATED)
 DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
 DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
 OS RATTUS NORVEGICUS (RAT).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA WILLIAMS C.M., NEWTON D.J., WILSON S.A., COLEMAN J.C.,
 RA FLANAGAN B.F.;
 RL SUBMITTED (DEC-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [2]
 RP SEQUENCE FROM N.A.
 RC TISSUE=LUNG;
 RA ISHII Y.;
 PL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
 DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
 FEATURE OF ALLERGIC INFLAMMATORY REACTIONS (BY SIMILARITY).
 CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
 CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 C-C) (CHEMOKINE CC).
 CC EMBL: Y08358; E274141;
 DR EMBL: Y08637; G2098785;
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KW EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
 KM INFLAMMATORY RESPONSE.
 FT CHAIN 1 23 POTENTIAL.
 FT DISULFID 24 97 EOTAXIN.
 FT DISULFID 32 57 BY SIMILARITY.
 FT DISULFID 33 73 BY SIMILARITY.
 FT CARBOHYD 94 94 POTENTIAL.
 FT CONFLICT 3 3 L -> S (IN REF. 2).
 SQ SEQUENCE 97 AA; 10851 MW; 0554ED45 CRC32;

Query Match 82.2%; Score 83; DB 1; Length 97;
 Best Local Similarity 83.3%; Pred. No. 2,42e-06;
 Matches 10; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Db 71 EICADPKKKWQ 82
 ||| ||| |||
 1 EICLDPKOKWQ 12

RESULT 17
 ID MCP3_HUMAN STANDARD; PRT; 99 AA.
 AC P80058;
 DT 01-DEC-1992 (REL. 24, CREATED)
 DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 3 PRECURSOR (MCP-3) (MONOCYTE
 CHEMOTACTICANT PROTEIN 3) (NC28).
 GN SCY7 OR MCP3.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A., AND SEQUENCE OF 31-67 AND 71-99.

RX MEDLINE: 93213290.
 RA OPDENAKKER G., FROYEN G., FITEN P., PROOST P., VAN DAMME J.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 191:535-542(1993).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 94375065.
 RA OPDENAKKER G., FITEN P., NYS G., FROYEN G., VAN ROY N., SPELLEMAN F.,
 RA LAUREYS G., VAN DAMME J.;
 RL GENOMICS 21:403-408(1994).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 93305913.
 RA MINTY A., CHALON P., GUILLEMOT J.C., KAGHAD M., LIANZUN P.,
 RA MAGALIN M., MILLOUX B., MINTY C., RAMOND P., VITA N., LUPKER J.,
 RA SHIRE D., FERRARA P., CAPUT D.;
 RL EUR. CYTOKINE NETW. 4:99-110(1993).
 RN [4]
 RP SEQUENCE OF 30-99.
 RC TISSUE=OSTEOSARCOMA;
 RX MEDLINE: 92308855.
 RA VAN DAMME J., PROOST P., LENAERTS J.-P., OPDENAKKER G.;
 RL J. EXP. MED. 176:59-65(1992).
 RN [5]
 RP STRUCTURE BY NMR, AND SUBUNIT.
 RX MEDLINE: 97053697.
 RA KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., STIKES B.D.;
 RL FEBS LETT. 395:277-282(1996).
 RN [6]
 RP STRUCTURE BY NMR.
 RX MEDLINE: 97263733.
 RA MEUNIER S., BERRASSAU J.-M., GUILLEMOT J.-C., FERRARA P., DARBON H.;
 RL BIOCHEMISTRY 36:4412-4422(1997).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND
 EOSINOPHILS, BUT NOT NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR
 ACTIVITY. ALSO INDUCES THE RELEASE OF GELATINASE B. THIS PROTEIN
 CAN BIND HEPARIN.
 CC -1- SUBUNIT: MONOMER.
 CC -1- PTM: O-GLYCOSYLATED.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 C-C) (CHEMOKINE CC).
 CC EMBL: X72308; G313708; ALT_INIT.
 DR EMBL: X72309; -: NOT ANNOTATED_CDS.
 DR EMBL: X71087; G288399; ALT_INIT.
 DR EMBL: X71087; G288398; ALT_INIT.
 DR EMBL: X71087; G288397; ALT_INIT.
 DR PIR: JC1478; JC1478.
 DR PIR: S32222; S32222.
 DR PIR: A54678; A54678.
 DR PDB: 1NCV; 15-OCT-97.
 DR MIM: 158106; -;
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; HEPARIN-BINDING; GLYCOPROTEIN; SIGNAL;
 KM INFLAMMATORY RESPONSE; 3D-STRUCTURE.
 FT CHAIN 1 23 MONOCYTE CHEMOTACTIC PROTEIN 3.
 FT MOD_RES 24 99 PYRROLIDONE CARBOXYLIC ACID.
 FT DISULFID 34 59 BY SIMILARITY.
 FT DISULFID 35 75 BY SIMILARITY.
 FT CARBOHYD 29 29 POTENTIAL.
 FT CONFLICT 30 30 T -> K (IN REF. 4).
 FT CONFLICT 68 70 MISSING (IN REF. 4).
 SQ SEQUENCE 99 AA; 11200 MW; 7502E19C CRC32;

Query Match 82.2%; Score 83; DB 1; Length 99;
 Best Local Similarity 83.3%; Pred. No. 2,42e-06;
 Matches 10; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Db 73 EICADPKKKWQ 84
 ||| ||| |||
 1 EICLDPKOKWQ 12

RESULT 18

ID EOTA HUMAN STANDARD; PRT: 97 AA.
 AC P51671; P50877; Q92490; Q92491;
 DT 01-OCT-1996 (REL. 34, CREATED)
 DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
 DT 01-OCT-1996 (REL. 35, LAST ANNOTATION UPDATE)
 DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
 GN SCYAL1
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 96181758.
 RA GARCIA-ZEPEDA E.A., ROTHENBERG M.E., OMNEY T.R., LEDER P.,
 RA LUSTER A.D.;
 RA NAT. MED. 2:449-456(1996).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 96189937.
 RA PONTATH P.D., QIN S., RINGLER D.J., CLARK-LEWIS I., WANG J., KASSAM N.,
 RA SMITH H., SHI X., GONZALO J.A., NEWMAN W., GUTIERREZ-RAMOS J.C.,
 RA MACRAY C.R.;
 RA J. CLIN. INVEST. 97:604-612(1996).
 RN [3]
 RP SEQUENCE FROM N.A.
 RC TISSUE-SMALL INTESTINE;
 RX MEDLINE: 96205964.
 RA KITAHARA M., NAKAJIMA T., IMAI T., HARADA S., COMBADIERE C.,
 RA TIEFANY H.L., MURPHY P.M., YOSHIE O.;
 RA J. BIOL. CHEM. 271:7725-7730(1996).
 RN [4]
 RP SEQUENCE FROM N.A., SEQUENCE OF 60-65 AND 75-88, AND VARIANTS.
 RC TISSUE-FORSKIN;
 RX MEDLINE: 96374440.
 RA BARTELS J., SCHLUETER C., RICHTER E., NOSO N., KULKE R.,
 RA CHRISTOPHERS E., SCHROEDER J.M.;
 RA BIOCHEM. BIOPHYS. RES. COMMUN. 225:1045-1051(1996).
 RN [5]
 RP SEQUENCE FROM N.A.
 RC TISSUE-PLACENTA;
 RX MEDLINE: 97312708.
 RA GARCIA-ZEPEDA E.A., ROTHENBERG M.E., WEREMOWICZ S., SARAFI M.N.,
 RA MORTON C.C., LUSTER A.D.;
 RA GENOMICS 41:471-476(1997).
 RN [6]
 RP SEQUENCE FROM N.A.
 RC TISSUE-LUNG;
 RX MEDLINE: 97445071.
 RA HEIN H., SCHLUETER C., KULKE R., CHRISTOPHERS E., SCHROEDER J.M.,
 RA BARTELS J.;
 RA BIOCHEM. BIOPHYS. RES. COMMUN. 237:537-542(1997).
 RN [7]
 RP FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
 DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
 FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.
 CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
 CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
 CC -1- INDUCTION: BY TNF-ALPHA, IL-1 ALPHA AND INTERFERON GAMMA.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 C-C) (CHEMOKINE CC).
 CC EMBL: U46573; G1280141; -;
 DR EMBL: U34780; G1185440; -;
 DR EMBL: D49372; G1552241; -;
 DR EMBL: 269291; E221070; -;
 DR EMBL: 273668; E251275; -;
 DR EMBL: 275669; E251258; -;
 DR EMBL: U46572; G2088509; -;
 DR EMBL: 292709; E329504; -;
 DR MIM: 601156; -;
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 DR EOSINOPHIL: CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
 KM INFLAMMATORY RESPONSE; POLYMORPHISM.
 FT SIGNAL 1 23 POTENTIAL.
 FT CHAIN 24 97 EOTAXIN.

FT DISULFID 32 57 BY SIMILARITY.
 FT DISULFID 33 73 BY SIMILARITY.
 FT VARIANT 7 7 L -> T (IN CLONE 34).
 FT VARIANT 23 23 A -> T (IN CLONE 53).
 FT VARIANT 51 51 R -> S (IN CLONE 34).
 FT VARIANT 79 79 K -> R (IN CLONE 53).
 SQ SEQUENCE 97 AA: 10732 MW: 6C0F3D98 CRC32;
 Query Match 81.2%; Score 82; DB 1; Length 97;
 Best Local Similarity 75.0%; Pred. No. 4.21e-06;
 Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;
 Db 71 DICADPKKKWQ 82
 Qy 1 EICLDPKKKWQ 12
 RESULT 19
 ID IL8 CERTO STANDARD; PRT: 101 AA.
 AC P46553;
 DT 01-NOV-1995 (REL. 32, CREATED)
 DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
 DT 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
 DE INTERLEUKIN-8 PRECURSOR (IL-8).
 GN IL8
 OS CERCOPIBUS TORQUATUS ATYS (RED-CROWNED MANGABEY) (SOOTY MANGABEY).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-BLOOD;
 RX MEDLINE: 96003435.
 RA VILLINGER F.J., BRAR S.S., WAYNE A.E., CHIKALA N., ANSARI A.A.;
 RA J. IMMUNOL. 155:3946-3954(1995).
 CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
 BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
 NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
 RESPONSE TO AN INFLAMMATORY STIMULUS (BY SIMILARITY).
 CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 C-X-C) (CHEMOKINE CX-C).
 CC EMBL: U19839; G644796; -;
 DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
 KM CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 22 BY SIMILARITY.
 FT CHAIN 23 101 INTERLEUKIN-8.
 FT DISULFID 34 61 BY SIMILARITY.
 FT DISULFID 36 77 BY SIMILARITY.
 SQ SEQUENCE 101 AA: 11309 MW: 47F1BF00 CRC32;
 Query Match 81.2%; Score 82; DB 1; Length 101;
 Best Local Similarity 75.0%; Pred. No. 4.21e-06;
 Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
 Db 75 EICLDPKKKWQ 86
 Qy 1 EICLDPKKKWQ 12
 RESULT 20
 ID IL8 MACMU STANDARD; PRT: 101 AA.
 AC P51495;
 DT 01-OCT-1996 (REL. 34, CREATED)
 DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
 DT 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
 DE INTERLEUKIN-8 PRECURSOR (IL-8).
 GN IL8
 OS MACACA MULATTA (RHESUS MACAQUE), AND MACACA NEMESTRINA (PIG-TAILED
 MACAQUE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.

RC TISSUE-BLOOD:
RX MEDLINE: 96003435.
RA VILLINGER F.J., BRAR S.S., MAYNE A.E., CHIKKALA N., ANSARI A.A.;
RL J. IMMUNOL. 155:3946-3954(1995).
RN [2]
RP SEQUENCE FROM N.A.
RC SPECIES=M.MIATTA: TISSUE-BLOOD;
RX MEDLINE: 95355132.
RA MINNERLY J.C., BAGANOFF M.P., DEPELIER C.L., KELLER B.T.,
RAPP S.R., WIDOMSKI D.L., FRETLAND D.J., BOLANOWSKI M.A.;
RL INFLAMMATION 19:313-331(1995).
CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
CC NEUTROPHIL ACTIVATION, IT IS RELEASED FROM SEVERAL CELL TYPES IN
CC RESPONSE TO AN INFLAMMATORY STIMULUS (BY SIMILARITY).
CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
CC C-X-C) (CHEMOKINE CXC).
DR EMBL: U19849; G644816; -.
DR EMBL: U19851; G644820; -.
DR EMBL: S78535; G1042228; -.
DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
KM CYTOKINE: CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 22 BY SIMILARITY.
FT CHAIN 23 101 INTERLEUKIN-8.
FT DISULFID 34 61 BY SIMILARITY.
FT DISULFID 36 77 BY SIMILARITY.
SQ SEQUENCE 101 AA; 11320 MW; 77D78AA0 CRC32;
Query Match 81.2%; Score 82; DB 1; Length 101;
Best Local Similarity 75.0%; Pred. No. 4.21e-06;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
Db 75 ELCDPKPKWQV 86
QY 1 ELCDPKPKWQV 12
RESULT 21
ID MCP2_PIG STANDARD; PRT; 99 AA.
AC P49873;
DT 01-OCT-1996 (REL. 34, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
DE CHEMOTACTIC PROTEIN 2).
GN SCY2 OR MCP2.
OS SUS SCROFA (PIG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 95091716.
RA HOSANG K.K., KNOKE I.I., KLAUDINY J.J., WEMPE F.F., WUTKE W.W.,
R SCHEIT K.K.;
RL BROCHEM. BIOPHYS. RES. COMMUN. 205:148-153(1994).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN
CC CAN BIND HEPARIN.
CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: Z48480; G683719; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KM CYTOKINE: CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23 BY SIMILARITY.
FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 2.
FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY
FT DISULFID 34 59 BY SIMILARITY.
FT DISULFID 35 75 BY SIMILARITY.
SQ SEQUENCE 99 AA; 10903 MW; B7620BCF CRC32;
Query Match 80.2%; Score 81; DB 1; Length 99;

Best Local Similarity 75.0%; Pred. No. 7.29e-06;
Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;
Db 73 EVCADPKWQV 84
QY 1 EICADPKWQV 12
RESULT 22
ID MCP1_CAVPO STANDARD; PRT; 120 AA.
AC Q08782;
DT 01-NOV-1995 (REL. 32, CREATED)
DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
DE CHEMOTACTIC PROTEIN 1).
GN SCY2 OR MCP1.
OS CAVIA PORCELLUS (GUINEA PIG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=2; TISSUE=SPLEEN;
RX MEDLINE: 93267104.
RA YOSHIMURA T.;
RL J. IMMUNOL. 150:5025-5032(1993).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS.
CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: L04985; G349821; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KM CYTOKINE: CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
FT SIGNAL 1 23 BY SIMILARITY.
FT CHAIN 24 120 MONOCYTE CHEMOTACTIC PROTEIN 1.
FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY
FT DISULFID 33 57 BY SIMILARITY.
FT DISULFID 34 73 BY SIMILARITY.
FT CARBOHYD 97 97 POTENTIAL.
SQ SEQUENCE 120 AA; 13741 MW; 22FAD257 CRC32;
Query Match 80.2%; Score 81; DB 1; Length 120;
Best Local Similarity 75.0%; Pred. No. 7.29e-06;
Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;
Db 71 EVCADPKWQV 82
QY 1 EICADPKWQV 12
RESULT 23
ID MCP5_MOUSE STANDARD; PRT; 104 AA.
AC Q62401;
DT 01-NOV-1997 (REL. 35, CREATED)
DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 5 PRECURSOR (MCP-5) (MCP-1 RELATED
DE CHEMOKINE).
GN SCY2 OR MCP5.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 97079149.
RA JIA G.-Q., GONZALO J.A., LLOYD C., KREMER L., LU L., MARTINEZ A.C.,
WERSHIL B.K., GUTIERREZ-RAMOS J.C.;
RL J. EXP. MED. 184:1939-1951(1996).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 97149438.

RA SARAFI M.N., GARCIA-ZEPEDA E.A., MACLEAN J.A., CHAO I.F.,
 RA LUSTER A.D.;
 CC J. EXP. MED. 185:99-109(1997).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS EOSINOPHILS, MONOCYTES,
 CC AND LYMPHOCYTES BUT NOT NEUTROPHILS. POTENT MONOCYTE ACTIVE
 CC CHEMOKINE THAT SIGNALS THROUGH CCR2. INVOLVED IN ALLERGIC
 CC INFLAMMATION AND THE HOST RESPONSE TO PATHOGENS AND MAY PLAY A
 CC PIVOTAL ROLE DURING EARLY STAGES OF ALLERGIC LUNG INFLAMMATION.
 CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
 CC -1- TISSUE SPECIFICITY: PREDOMINANTLY EXPRESSED IN THE LYMPH NODES AND
 CC THYMUS. ALSO FOUND IN THE SALIVARY GLANDS CONTAINING LYMPH NODES,
 CC BREAST, HEART, LUNG, BRAIN, SMALL INTESTINE, KIDNEY AND COLON.
 CC -1- INDUCTION: BY IFN-GAMMA AND LIPOPOLYSACCHARIDE (LPS).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL: U50712; G1477582; -.
 DR EMBL: U66670; G1881583; -.
 DR MGD: MGI:108224; SCYA12.
 DR PROSITE: PS00472; SMALL CYTOKINES CC; 1.
 DR CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
 KW CYTOKINE.
 FT SIGNAL 1 22 BY SIMILARITY.
 FT CHAIN 23 104 MONOCYTE CHEMOTACTIC PROTEIN 5.
 FT DISULFID 33 58 BY SIMILARITY.
 FT DISULFID 34 74 BY SIMILARITY.
 SQ SEQUENCE 104 AA; 11659 MW; 08FA6C35 CRC32;
 Query Match 78.2%; Score 79; DB 1; Length 104;
 Best Local Similarity 81.8%; Pred. No. 2.17e-05;
 Matches 9; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
 Db 72 EICADPKRKV 82
 QY 1 EICLDPKQKV 11
 RESULT 24
 ID SDF1_MOUSE STANDARD; PRT; 89 AA.
 AC P40224;
 DT 01-FEB-1995 (REL. 31, CREATED)
 DT 01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
 DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
 DE STROMAL CELL-DERIVED FACTOR 1 PRECURSOR (SDF-1) (PRE-B CELL GROWTH
 DE STIMULATING FACTOR) (PBSF) (12-O-TETRADECANOYLPHORBOL 13-ACETATE
 DE REPRESSED PROTEIN 1) (TPARI) (THYMIC LYMPHOMA CELL STIMULATING FACTOR)
 DE (TUSF).
 GN SDF1.
 OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 94181581.
 RA NAGASAWA T., KIKUTANI H., KISHIMOTO T.;
 RL PROC. NATL. ACADE. SCI. U.S.A. 91:2305-2309(1994).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 93342488.
 RA TASHIRO K., TADA H., HEIKER R., SHIROZU M., NAKANO T., HONJO T.;
 RL SCIENCE 261:600-603(1993).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 95073497.
 RA JIANG W., ZHOU P., KAHN S.M., TOMITA N., JOHNSON M.D.,
 RA WEINSTEIN I.B.;
 RL EXP. CELL RES. 215:284-293(1994).
 RN [4]
 RP SEQUENCE FROM N.A.
 RC STRAIN-AKR/J;
 RA NOMURA M., NAKATA Y., UZAWA A., NOSE M., AKASHI M., SUZUKI G.;
 RL SUBMITTED (DEC-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
 CC -1- FUNCTION: CHEMOTACTIC ACTIVE ON T-LYMPHOCYTES, MONOCYTES, BUT
 CC NOT NEUTROPHILS.
 CC -1- FUNCTION: STIMULATES THE PROLIFERATION OF BONE MARROW-DERIVED B

CC PROGENITOR CELLS IN THE PRESENCE OF IL-7 AS WELL AS GROWTH OF THE
 CC STROMAL CELL-DEPENDENT B-CELL CLONE DW34 CELLS.
 CC -1- ALTERNATIVE PRODUCTS: TWO DIFFERENT FORMS (ALPHA AND BETA) ARE
 CC PROBABLY GENERATED BY ALTERNATIVE SPLICING.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 CC C-X-C) (CHEMOKINE CXCL).
 DR EMBL: D21072; G468457; -.
 DR EMBL: I12029; G393180; -.
 DR EMBL: I12030; G393182; -.
 DR EMBL: S74318; G786394; -.
 DR EMBL: D43804; G1304174; -.
 DR EMBL: D43805; G1304175; -.
 DR PIR: A53497; A53497.
 DR MGD: MGI:103556; SDF1.
 DR PROSITE: PS00471; SMALL CYTOKINES CXCL; FALSE_NEG.
 DR CYTOKINE; CHEMOTAXIS; GROWTH FACTOR; SIGNAL; ALTERNATIVE SPLICING.
 KW CYTOKINE.
 FT SIGNAL 1 19 POTENTIAL.
 FT CHAIN 20 89 STROMAL CELL-DERIVED FACTOR 1.
 FT DISULFID 30 55 BY SIMILARITY.
 FT DISULFID 32 71 BY SIMILARITY.
 FT VARSPLIC 89 89 K -> KRLKM (IN FORM BETA).
 SQ SEQUENCE 89 AA; 10032 MW; 222C4E52 CRC32;
 Query Match 77.2%; Score 78; DB 1; Length 89;
 Best Local Similarity 58.3%; Pred. No. 3.72e-05;
 Matches 7; Conservative 4; Mismatches 1; Indels 0; Gaps 0;
 Db 69 QVCIDPKLWV 80
 QY 1 EICLDPKQKV 12
 RESULT 25
 ID SDF1_HUMAN STANDARD; PRT; 93 AA.
 AC P48061;
 DT 01-FEB-1996 (REL. 33, CREATED)
 DT 01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE STROMAL CELL-DERIVED FACTOR 1 PRECURSOR (SDF-1) (PRE-B CELL GROWTH
 DE STIMULATING FACTOR) (PBSF).
 GN SDF1.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA SPOTILA L.D.;
 RL SUBMITTED (OCT-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 96039262.
 RA SHIROZU M., NAKANO T., INAZAWA J., TASHIRO K., TADA H.,
 RA SHINOHARA T., HONJO T.;
 RL GENOMICS 28:495-500(1995).
 RN [3]
 RP STRUCTURE BY NMR OF 22-88.
 RX MEDLINE: 98046030.
 RA CRUMP M.P., GONG J.H., LOETSCHER P., RAJARATHNAM K., AMARA A.,
 RA ARENZANA-SEISDEDOS F., VIRELIZIER J.L., BAGGIOLINI M., SYKES B.D.,
 RA CLARK-LEWIS I.;
 RL EMBO J. 16:6996-7007(1997).
 CC -1- FUNCTION: CHEMOTACTIC ACTIVE ON T-LYMPHOCYTES, MONOCYTES, BUT
 CC NOT NEUTROPHILS.
 CC -1- ALTERNATIVE PRODUCTS: TWO DIFFERENT FORMS (ALPHA AND BETA) ARE
 CC PROBABLY GENERATED BY ALTERNATIVE SPLICING.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 CC C-X-C) (CHEMOKINE CXCL).
 DR EMBL: U16752; G571508; -.
 DR EMBL: I36033; G1220366; -.
 DR PDB: 1SDF; 28-JAN-98.
 DR PDB: 2SDF; 17-JUN-98.
 DR MIM: 600835; -.
 DR PROSITE: PS00471; SMALL CYTOKINES CXCL; FALSE_NEG.

KW CYTOKINE; CHEMOTAXIS; GROWTH FACTOR; SIGNAL; ALTERNATIVE SPLICING;
 3D-STRUCTURE.
 FT SIGNAL 1 19 POTENTIAL.
 FT CHAIN 20 93 STROMAL CELL-DERIVED FACTOR 1.
 FT DISULFID 30 55
 FT DISULFID 32 71
 SO SEQUENCE 93 AA; 10666 MW; 4B9911C7 CRC32;

Query Match 77.2%; Score 78; DB 1; Length 93;
 Best Local Similarity 58.3%; Pred. No. 3.72e-05;
 Matches 7; Conservative 4; Mismatches 1; Indels 0; Gaps 0;

Db 69 QYCDPKKRWQ 80
 QY 1 EICLDPKRWQ 12

RESULT 26
 ID EOTA CAVPO STANDARD; PRT; 96 AA.
 AC P80325;
 DT 01-JUN-1994 (REL. 29, CREATED)
 DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
 GN SCYAL1.
 OS CAVIA PORCELLUS (GUINEA PIG).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-LUNG;
 RX MEDLINE; 95173589.
 RA ROSENBERG M.E., LUSTER A.D., LILLY C.M., DRAZEN J.M., LEDER P.;
 RL J. EXP. MED. 181:1211-1216(1995).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 95091818.
 RA JOSE P.J., ACCOCK I.M., GRIFFITHS-JOHNSON D.A., BERKMAN N.,
 RA WELLS T.C., WILLIAMS T.J., POWER C.A.;
 RA BIOCHEM. BIOPHYS. RES. COMMUN. 205:788-794(1994).
 RN [3]
 RP SEQUENCE OF 24-96.
 RC STRAIN-HARTLEY; TISSUE-LUNG;
 RX MEDLINE; 94157409.
 RA JOSE P.J., GRIFFITHS-JOHNSON D.A., COLLINS P.D., WALSH D.T.,
 RA MOEBEL R., TOTTY N.F., TRUONG O., HSAN J.J., WILLIAMS T.J.;
 RL J. EXP. MED. 179:881-887(1994).
 RN [4]
 RP FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLEGENS, THIS PROTEIN
 DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
 FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.
 CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
 CC -1- TISSUE SPECIFICITY: LUNG.
 CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 C-C) (CHEMOKINE CC).
 CC EMBL; U18941; G687656; -.
 DR EMBL; X77603; G602552; -.
 DR HSSP; P13500; IMCA.
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
 KW EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
 KW INFLAMMATORY RESPONSE.
 FT SIGNAL 1 23
 FT CHAIN 24 96 EOTAXIN.
 FT DISULFID 31 56 BY SIMILARITY.
 FT DISULFID 32 72 BY SIMILARITY.
 FT CARBOHYD 93 93 POTENTIAL.
 FT CONFLICT 88 88 D -> G (IN REF. 2).
 SO SEQUENCE 96 AA; 10753 MW; DD28C7B5 CRC32;

Query Match 76.2%; Score 77; DB 1; Length 96;
 Best Local Similarity 81.8%; Pred. No. 6.37e-05;
 Matches 9; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Db 71 ICADPKRWQ 81
 QY 2 ICLDPKRWQ 12

RESULT 27
 ID MIA_PAT STANDARD; PRT; 92 AA.
 AC P50229;
 DT 01-OCT-1996 (REL. 34, CREATED)
 DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
 DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
 DE MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR (MIP-1-ALPHA).
 GN SCY3 OR MIP1A.
 OS RATTUS NORVEGICUS (RAT).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-CD-1; TISSUE-LUNG;
 RX MEDLINE; 9528037.
 RA SHI M.M., GODLESKI J.J., PAULASKIS J.D.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 211:289-295(1995).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC STRAIN-LONG EVANS; TISSUE-LUNG;
 RX MEDLINE; 95238980.
 RA SHANLEY T.P., SCHMAL H., FRIEDL H.P., JONES M.L., WARD P.A.;
 RL J. IMMUNOL. 154:4793-4802(1995).
 RN [3]
 RP SEQUENCE OF 24-57.
 RC STRAIN-MISTAR;
 RX MEDLINE; 96183056.
 RA NAKAGAWA H., SHIOYA S., TAKANO K., SHIBATA F., KATO H.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 220:945-948(1996).
 RN [4]
 RP FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.
 HAS CHEMOTACTIC ACTIVITY FOR MONOCYTES, NEUTROPHILS, EOSINOPHILS,
 BASOPHILS, AND LYMPHOCYTES. REQUIRED FOR LUNG TNF-ALPHA
 PRODUCTION, NEUTROPHIL RECRUITMENT AND SUBSEQUENT LUNG INJURY AND
 MAY FUNCTION AS AN AUTOCRINE MEDIATOR FOR THE MACROPHAGE
 PRODUCTION OF TNF-ALPHA WHICH IN TURN UP-REGULATES VASCULAR
 ADHESION MOLECULES REQUIRED FOR NEUTROPHIL INFILUX. THIS PROTEIN
 BINDS HEPARIN.
 CC -1- INDUCTION: BY LIPOLYSACCHARIDE (LPS).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 C-C) (CHEMOKINE CC).
 CC EMBL; U22414; G790633; -.
 DR EMBL; U06435; G459150; -.
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL; HEPARIN-BINDING.
 FT SIGNAL 1 23
 FT CHAIN 24 92
 FT DISULFID 34 57 MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA.
 FT DISULFID 35 73 BY SIMILARITY.
 FT CONFLICT 6 6 A -> T (IN REF. 2).
 FT CONFLICT 57 57 C -> M (IN REF. 2 AND 3).
 SO SEQUENCE 92 AA; 10335 MW; F48CF89F CRC32;

Query Match 75.2%; Score 76; DB 1; Length 92;
 Best Local Similarity 66.7%; Pred. No. 1.09e-04;
 Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 71 QICADPKRWQ 82
 QY 1 EICLDPKRWQ 12

RESULT 28
 ID MCPB_BOVIN STANDARD; PRT; 74 AA.
 AC P80343;
 DT 01-FEB-1995 (REL. 31, CREATED)
 DT 01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1B (MCP-1B) (FRAGMENT).

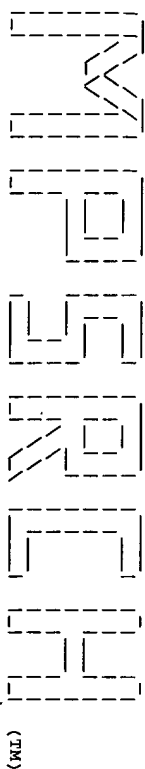
LEVEL EXPRESSION IS SEEN IN LYMPHOID TISSUES SUCH AS LYMPH NODES,
 CC THYMUS AND APPENDIX.
 CC -I- INDUCTION: BY LIPOLYSACCHARIDE (LPS).
 CC -I- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL: AB000221; D1022520; -.
 DR EMBL: Y13710; E321838; -.
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 20
 FT CHAIN 21 89 MACROPHAGE INFLAMMATORY PROTEIN 4.
 FT DISULFID 30 54 BY SIMILARITY.
 FT DISULFID 31 70 BY SIMILARITY.
 SQ SEQUENCE 89 AA; 9849 MW; 052AA3DC CRC32;

Query Match 73.3%; Score 74; DB 1; Length 89;
 Best Local Similarity 66.7%; Pred. No. 3.14e-04;
 Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

DB 68 QICADPNKKWQ 79
 :|||:||||
 QY 1 EICIDPKOKWQ 12

Search completed: Thu Apr 1 07:33:57 1999
 Job time : 9 secs.

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Mpsrch_gp protein - protein database search, using Smith-Waterman algorithm

Run on: Thu Apr 1 07:34:15 1999; MasPar time 4.93 Seconds

Tabular output not generated. 134.420 Million cell updates/sec

Title: >US-08-927-939-10
Description: (1-12) from US08927939.pep
Perfect Score: 101

Sequence: 1 EICLDPKQKMWQ 12

Scoring table: PAM 150
Gap 15

Searched: 180763 segs, 55169189 residues

Post-processing: Minimum Match 0%
Listing first 100 summaries

Database:

sptrembl8
1:sp_archaea 2:sp_bacteria 3:sp_fungi 4:sp_human
5:sp_invertebrate 6:sp_mammal 7:sp_mhc 8:sp_organelle
9:sp_phase 10:sp_plant 11:sp_rodent 12:sp_unclassified
13:sp_vertebrate 14:sp_virus

Statistics: Mean 25.692; Variance 33.643; scale 0.764

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description	Pred. No.
1	79	78.2	97	6	062812	INTERLEUKIN-8 (FRAGMEN	5.88e-05
2	74	73.3	97	13	057411	LYMPHOTACTIN PRECURSOR	8.15e-04
3	74	73.3	395	11	035188	NEUTROPHILIN.	8.15e-04
4	74	73.3	395	11	035933	FRACTALIN.	8.15e-04
5	70	63.3	119	4	000175	MPF-2.	6.31e-03
6	69	68.3	97	11	089093	CC CHEMOKINE ST38 PREC	1.04e-02
7	69	68.3	134	4	000585	BETA CHEMOKINE EXODUS-	1.04e-02
8	68	67.3	92	11	088430	CC CHEMOKINE ABCD-1.	1.72e-02
9	68	67.3	109	11	055038	B LYMPHOCYTE CHEMOKIN	1.72e-02
10	67	66.3	104	13	073912	K60 PROTEIN PRECURSOR	2.82e-02
11	65	64.4	80	4	014745	LD78 ALPHA BETA PRECUR	7.51e-02
12	65	64.4	95	4	099664	CHEMOKINE EXODUS.	7.51e-02
13	65	64.4	96	11	097884	CC CHEMOKINE EXODUS.	7.51e-02
14	65	64.4	120	4	015447	IL-10-INDUCIBLE CHEMOK	7.51e-02
15	63	62.4	101	13	093442	LFCA-1 PROTEIN PRECURS	1.97e-01
16	62	61.4	101	13	093238	CC CHEMOKINE-1.	3.16e-01
17	61	60.4	91	4	043646	RANTES PRECURSOR.	5.06e-01
18	61	60.4	109	4	043927	CXC CHEMOKINE PRECURSO	5.06e-01
19	60	59.4	95	14	098158	ORF K6.	8.07e-01
20	60	59.4	203	14	067634	ECO Q PROTEIN (FRAGMEN	8.07e-01

21	59.4	397	4	P78423	CXC3 CHEMOKINE PRECURS	8.07e-01
22	59.4	93	4	000626	MACROPHAGE-DERIVED CHE	1.28e+00
23	59.4	133	11	009006	BETA CHEMOKINE EXODUS-	1.28e+00
24	58.4	133	11	009002	SMALL INDUCIBLE CYTOKI	1.28e+00
25	58.4	584	5	002426	SMALL HOMOLOG.	1.28e+00
26	57.4	535	10	082387	PUTATIVE CELL DIVISION	2.02e+00
27	56.4	201	11	P70357	PLASMA RETINOL-BINDING	3.17e+00
28	56.4	331	5	017348	H42R12.2 PROTEIN.	3.17e+00
29	56.4	760	3	099126	CHITIN SYNTHETASE 1.	3.17e+00
30	55.4	158	10	046975	RESISTANCE DISEASE RESIS	4.95e+00
31	55.4	192	10	023536	RESISTANCE GENE HOMO	4.95e+00
32	55.4	281	3	006667	CHROMOSOME IV COSMID 9	4.95e+00
33	55.4	363	7	030870	MHC CLASS I A PROTEIN MO	4.95e+00
34	55.4	363	7	093394	MHC CLASS I PROTEIN MO	4.95e+00
35	55.4	629	5	P91819	RNA POLYMERASE II LARG	4.95e+00
36	55.4	1361	10	004264	DONNY MILDEN RESISTANC	4.95e+00
37	54.5	145	2	P74671	HYPOHETICAL 16.6 KD P	7.70e+00
38	54.5	806	13	093599	TRANSCRIPTION FACTOR	7.70e+00
39	54.5	899	4	013527	PROHORMONE CONVERTASE	7.70e+00
40	54.5	915	4	092824	PC6A PROTEASE.	7.70e+00
41	54.5	1186	14	055767	PUTATIVE TYROSINE PROT	7.70e+00
42	54.5	172	2	051136	H11054 HOMOLOG (FRAGME	1.19e+01
43	54.5	187	2	083516	HYPOHETICAL 21.4 KD P	1.19e+01
44	54.5	188	5	045136	COSD2.8 PROTEIN.	1.19e+01
45	54.5	230	14	067245	NS1.	1.19e+01
46	54.5	399	14	068245	ORE UL154.	1.19e+01
47	54.5	475	4	060646	HYPOHETICAL 53.8 KD P	1.19e+01
48	54.5	749	13	093598	TRANSCRIPTION FACTOR.	1.19e+01
49	54.5	767	13	013133	STAR3.	1.19e+01
50	54.5	862	4	099665	IL-12 RECEPTOR BETA2.	1.19e+01
51	54.5	1130	14	088282	ENVELOPE PROTEIN.	1.19e+01
52	54.5	2276	4	075050	KIAA0462 PROTEIN (FRAG	1.19e+01
53	54.5	148	14	082745	(STRAIN LWRT 60-1	1.83e+01
54	54.5	152	2	052895	HYPOHETICAL 17.5 KD P	1.83e+01
55	54.5	152	2	045956	ORF 152B.	1.83e+01
56	54.5	167	7	046767	MHC CLASS I HEAVY CHAI	1.83e+01
57	54.5	227	14	009683	NONSTRUCTURAL PROTEIN	1.83e+01
58	54.5	230	14	082807	NONSTRUCTURAL PROTEIN	1.83e+01
59	54.5	230	14	092560	NONSTRUCTURAL PROTEIN.	1.83e+01
60	54.5	230	14	067261	NONSTRUCTURAL PROTEIN.	1.83e+01
61	54.5	328	2	025855	HYPOHETICAL 37.2 KD P	1.83e+01
62	54.5	334	7	030770	MHC CLASS I ALLELE SHN	1.83e+01
63	54.5	642	2	009029	REP PROTEIN (REPLICATI	1.83e+01
64	54.5	947	4	060334	KIAA0593 PROTEIN (FRAG	1.83e+01
65	54.5	982	5	093290	HYPOHETICAL PROTEIN C	1.83e+01
66	54.5	1089	5	026155	V-SERA 1.	1.83e+01
67	54.5	1142	4	014324	FAST MBP-C.	1.83e+01
68	54.5	1589	5	045569	FSAP11.2.	1.83e+01
69	54.5	3587	2	030408	TYROCIDINE SYNTHETASE	1.83e+01
70	54.5	75	4	000228	PGAM-B (FRAGMENT).	2.79e+01
71	54.5	120	7	046784	MHC CLASS I HEAVY CHAI	2.79e+01
72	54.5	147	7	046723	MHC CLASS I HEAVY CHAI	2.79e+01
73	54.5	166	7	046720	MHC CLASS I HEAVY CHAI	2.79e+01
74	54.5	166	7	046734	MHC CLASS I HEAVY CHAI	2.79e+01
75	54.5	166	7	046742	MHC CLASS I HEAVY CHAI	2.79e+01
76	54.5	167	7	046743	MHC CLASS I HEAVY CHAI	2.79e+01
77	54.5	167	7	046716	MHC CLASS I HEAVY CHAI	2.79e+01
78	54.5	167	7	046756	MHC CLASS I HEAVY CHAI	2.79e+01
79	54.5	167	7	046781	MHC CLASS I HEAVY CHAI	2.79e+01
80	54.5	167	7	046724	MHC CLASS I HEAVY CHAI	2.79e+01
81	54.5	167	7	046715	MHC CLASS I HEAVY CHAI	2.79e+01
82	54.5	167	7	046713	MHC CLASS I HEAVY CHAI	2.79e+01
83	54.5	167	7	046761	MHC CLASS I HEAVY CHAI	2.79e+01
84	54.5	167	7	046766	MHC CLASS I HEAVY CHAI	2.79e+01
85	54.5	167	7	078058	MHC CLASS I HEAVY CHAI	2.79e+01
86	54.5	167	7	046719	MHC CLASS I HEAVY CHAI	2.79e+01
87	54.5	167	7	046755	MHC CLASS I HEAVY CHAI	2.79e+01
88	54.5	167	7	046754	MHC CLASS I HEAVY CHAI	2.79e+01
89	54.5	209	1	029680	CONSERVED HYPOHETICAL	2.79e+01
90	54.5	257	11	088827	PLASMA CELL MEMBRANE	2.79e+01
91	54.5	282	2	P96965	2-HYDROXY-6-OXO-7-METH	2.79e+01
92	54.5	343	7	078034	MHC CLASS I HEAVY CHAI	2.79e+01
93	54.5	353	7	030236	MHC CLASS I A10 MRNA	2.79e+01

RA NARDELLI B., PIPPAIA V., GENTZ S., THOTAKURA R., PARMELEE D.,
 RA GENTZ R., GAROTTA G.,
 RL J. EXP. MED. 0:0-0(0).
 DR EMBL: U85768; G1916252; -.
 DR PFAM: PF00048; 118; 1.
 SQ SEQUENCE 119 AA; 13119 MW; CDF526F0 CRC32;

Query Match 69.3%; Score 70; DB 4; Length 119;
 Best Local Similarity 66.7%; Pred. No. 6.31e-03;
 Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 72 QCGDPRKQWV 83
 QY 1 EICLDPKQKQW 12

RESULT 6 PRELIMINARY; PRT: 97 AA.
 ID 089093
 AC 089093;
 DT 01-NOV-1998 (TREMELREL. 08, CREATED)
 DT 01-NOV-1998 (TREMELREL. 08, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMELREL. 08, LAST ANNOTATION UPDATE)
 DE CC CHEMOKINE ST38 PRECURSOR.
 GN LARC.
 OS MUS MUSCULUS (MOUSE).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
 OC RODENTIA; SCIUROGNATHI; MORIDAE; MURINAE; MUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA UTMANS-SCHNEITZ U., LOREZ H., KLINKERT W.E.F., DA SILVA J.,
 RA LESSLAUER W.,
 RT "A novel rat CC chemokine, identified by targeted differential
 display, is upregulated in brain inflammation.";
 RL J. NEUROIMMUNOL. 0:0-0(1998).
 RN [2]
 RP SEQUENCE FROM N.A.
 RA VILLARES R.,
 RL SUBMITTED (JUL-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: AF05313; G3551819; -.
 DR EMBL: AJ007862; E1312757; -.
 KW SIGNAL.
 FT SIGNAL 1 27 POTENTIAL.
 FT CHAIN 28 97 CC CHEMOKINE ST38.
 SQ SEQUENCE 97 AA; 10826 MW; 053405BD CRC32;

Query Match 68.3%; Score 69; DB 11; Length 97;
 Best Local Similarity 70.0%; Pred. No. 1.04e-02;
 Matches 7; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 74 VCADPKQWV 83
 QY 2 ICLDPKQKQW 11

RESULT 7 PRELIMINARY; PRT: 134 AA.
 ID 000585
 AC 000585;
 DT 01-JUL-1997 (TREMELREL. 04, CREATED)
 DT 01-JUL-1997 (TREMELREL. 04, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMELREL. 08, LAST ANNOTATION UPDATE)
 DE BETA CHEMOKINE EXODUS-2.
 OS HOMO SAPIENS (HUMAN).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
 OC CATARRHINI; HOMINIDAE; HOMO.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA HROMAS R.A., GRAY P., KIENSZ M., FIFE K., BROCKMEYER H.,
 RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 97400322.
 RA HEDRICK J.A., ZLOTNIK A.,
 RT "Identification and characterization of a novel beta chemokine

RT containing six conserved cysteines.";
 RL J. IMMUNOL. 159:1589-1593(1997).
 RN [3]
 RP SEQUENCE FROM N.A.
 RA HEDRICK J.A., ZLOTNIK A.,
 RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [4]
 RP SEQUENCE FROM N.A.

RA NAGIRA M., IMAI T., HIESHIMA K., KUSUDA J., RIDANPAA M., TAKAGI S.,
 RA NISHIMURA M., KAKIZAKI M., NOMIYAMA H., YOSHIE O.,
 RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: U88320; G2196920; -.
 DR EMBL: AF001979; G2624925; -.
 DR EMBL: AB002409; D1022673; -.
 DR PFAM: PF00048; 118; 1.
 SQ SEQUENCE 134 AA; 14646 MW; FE86A239 CRC32;

Query Match 68.3%; Score 69; DB 4; Length 134;
 Best Local Similarity 66.7%; Pred. No. 1.04e-02;
 Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 73 ELCDPKQWV 84
 QY 1 EICLDPKQKQW 12

RESULT 8 PRELIMINARY; PRT: 92 AA.
 ID 088430
 AC 088430;
 DT 01-NOV-1998 (TREMELREL. 08, CREATED)
 DT 01-NOV-1998 (TREMELREL. 08, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMELREL. 08, LAST ANNOTATION UPDATE)
 DE CC CHEMOKINE ABCD-1.
 OS MUS MUSCULUS (MOUSE).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
 OC RODENTIA; SCIUROGNATHI; MORIDAE; MURINAE; MUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA TISSUE-LIVER.
 RX MEDLINE: 98353531.
 RA SCHANTEL C., PARDALI E., SALUSTO F., SPELETAS M., RUDEL C.,
 RA SHIMIZU T., SEIDL T., ANDERSSON J., MELCHERS F., ROLINK A.G.,
 RA SIDERAS P.,
 RT "Activated murine B lymphocytes and dendritic cells produce a novel
 CC chemokine which acts selectively on activated T cells."
 RL J. EXP. MED. 188:451-463(1998).
 DR EMBL: AF052505; G3378116; -.
 SQ SEQUENCE 92 AA; 10302 MW; BC7219A0 CRC32;

Query Match 67.3%; Score 68; DB 11; Length 92;
 Best Local Similarity 63.6%; Pred. No. 1.72e-02;
 Matches 7; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 74 DICADPROVW 84
 QY 1 EICLDPKQKQW 11

RESULT 9 PRELIMINARY; PRT: 109 AA.
 ID 055038
 AC 055038;
 DT 01-JUN-1998 (TREMELREL. 06, CREATED)
 DT 01-JUN-1998 (TREMELREL. 06, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMELREL. 08, LAST ANNOTATION UPDATE)
 DE B LYMPHOCYTE CHEMOATTRACTANT BLC.
 OS MUS MUSCULUS (MOUSE).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
 OC SCIUROGNATHI; MORIDAE; MURINAE; MUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-C57BL/6J.
 RX MEDLINE: 98146056.
 RA GUNN M.D., NGO V.N., ANSEL K.M., EKLAND E.H., CYSTER J.G.,

RA WILLIAMS L.T.:

RT "A B-cell-homing chemokine made in lymphoid follicles activates Burkitt's lymphoma receptor-1."

RL NATURE 391:799-803(1998).

DR EMBL: AF044196; G2911374; -

SQ SEQUENCE 109 AA; 11927 MW; BB6CC22 CRC32;

Query Match 67.3%; Score 68; DB 11; Length 109;

Best Local Similarity 54.3%; Pred. No. 1.72e-02;

Matches 6; Conservative 4; Mismatches 1; Indels 0; Gaps 0;

Db 74 ICVNPRAKWLQ 84

QY 2 ICIDPCKOKWQ 12

RESULT 10 PRELIMINARY; PRT; 104 AA.

ID 073912

AC 073912; PRELIMINARY; PRT; 104 AA.

DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)

DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)

DE K60 PROTEIN PRECURSOR.

GN K60.

OS GALLUS GALLUS (CHICKEN).

OC NEKAROTA; METAZOA; CHORDATA; VERTEBRATA; ARCHOSAURIA; AVES;

RN [1]

RP SEQUENCE FROM N.A.

RC TISSUE-MACROPHAGE LIKE;

RA SICK C.;

RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.

DR EMBL: Y14971; E1295103; -.

KW SIGNAL.

FT SIGNAL 1 20 POTENTIAL.

FT CHAIN 21 104 K60 PROTEIN.

SQ SEQUENCE 104 AA; 11199 MW; 40C2EF8A CRC32;

Query Match 66.3%; Score 67; DB 13; Length 104;

Best Local Similarity 63.6%; Pred. No. 2.82e-02;

Matches 7; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Db 75 EVCIDPTAPWV 85

QY 1 EICIDPCKOKWV 11

RESULT 11 PRELIMINARY; PRT; 80 AA.

ID 014745

AC 014745; PRELIMINARY; PRT; 80 AA.

DT 01-NOV-1996 (TREMBLREL. 01, CREATED)

DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)

DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)

DE LD78 ALPHA BETA PRECURSOR (FRAGMENT).

OS HOMO SAPIENS (HUMAN).

OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;

Query Match 64.4%; Score 65; DB 4; Length 80;

Best Local Similarity 50.0%; Pred. No. 7.51e-02;

Matches 6; Conservative 3; Mismatches 3; Indels 0; Gaps 0;

Db 65 QVCADPSEWVQ 76

QY 1 EICIDPCKOKWV 12

RESULT 12 PRELIMINARY; PRT; 95 AA.

ID 099664

AC 099664;

DT 01-MAY-1997 (TREMBLREL. 03, CREATED)

DT 01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)

DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)

DE CHEMOKINE EXODUS.

OS HOMO SAPIENS (HUMAN).

OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;

RN [1]

RP SEQUENCE FROM N.A.

RC TISSUE-PANCREAS;

RX MEDLINE: 97275143.

RA HROMAS R., GRAY P.W., CHANTREY D., GODISKA R., KRATHOHL M., EFFE K.,

RA BELL G.I., TAKEDA J., ARONICA S., GORDON M., COOPER S., BROXMEYER H.E.,

RA KIEMSZ M.J.;

RT Cloning and characterization of exodus, a novel beta-chemokine."

RL BLOOD 89:3315-3322(1997).

DR EMBL: U64197; G1778717; -.

DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.

DR PRAM: PF00048; 118; 1.

SQ SEQUENCE 95 AA; 10691 MW; 1526B4C0 CRC32;

Query Match 64.4%; Score 65; DB 4; Length 95;

Best Local Similarity 60.0%; Pred. No. 7.51e-02;

Matches 6; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 72 VCANPKOTWV 81

QY 2 ICIDPCKOKWV 11

RESULT 13 PRELIMINARY; PRT; 96 AA.

ID P97884

AC P97884;

DT 01-MAY-1997 (TREMBLREL. 03, CREATED)

DT 01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)

DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)

DE CC CHEMOKINE EXODUS.

OS RATTUS NORVEGICUS (RAT).

OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;

Page 4

Best Local Similarity 70.0%; Pred. No. 7.51e-02;
Matches 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 73 VCADPKQIWN 82
:|||||
OY 2 ICLDPKQKVV 11

RESULT 14
ID 015467; PRELIMINARY; PRT; 120 AA.

AC 015467;
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE IL-10-INDUCIBLE CHEMOKINE.

GN ILINCK OR SCYA16.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.

RP [1] SEQUENCE FROM N.A.
RA HERBICK J.A., HELMS A., GORMAN D., ZLOTNIK A.;
RL SUBMITTED (NOV-1997) TO EMBL/GENBANK/DBJ DATA BANKS.

RP [2] SEQUENCE FROM N.A.
RC TISSUE-LAYER;
RA SHODAI K., HIESHIMA K., FUKUDA S., ITO M., MIURA R., IMAI T.,
RA YOSHIE O., NOMIYAMA H.;
RL BIOCHIM. BIOPHYS. ACTA 0:0-0(1998).

RP [3] SEQUENCE FROM N.A.
RA NOMIYAMA H.;
RT "Structure of a region of 181 kb containing five CC chemokine genes.";
RL SUBMITTED (AUG-1998) TO EMBL/GENBANK/DBJ DATA BANKS.

RP [4] SEQUENCE FROM N.A.
RX MEDLINE: 98308096.

RA YOUN B.S., ZHANG S., BROXMEYER H.E., ANTOL K., FRASER M.J. JR.,
RT HANGOC G., KWON B.S.;
RT "Isolation and characterization of LMC, a novel lymphocyte and
RT monocytic chemottractant human CC chemokine, with myelosuppressive
RT activity.";

RL BIOCHEM. BIOPHYS. RES. COMMUN. 247:217-222(1998).
DR EMBL: U91746; G2581781; -;
DR EMBL: AB007454; D1024963; -;
DR EMBL: AF088219; G3719365; -;
DR EMBL: AF055467; G3395776; -;
DR PFAM: PF00048; 118; 1.

KW SIGNAL.
SQ SEQUENCE 120 AA; 13600 MW; A079DF66 CRC32;

Query Match 64.4%; Score 65; DB 4; Length 120;
Best Local Similarity 50.0%; Pred. No. 7.51e-02;
Matches 6; Conservative 4; Mismatches 2; Indels 0; Gaps 0;

Db 74 EYCTNPNDWVQ 85
:|:|:|:|:|
OY 1 EICLDPKQKVV 12

RESULT 15
ID 093442; PRELIMINARY; PRT; 101 AA.

AC 093442;
DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE LFCA-1 PROTEIN PRECURSOR.

OS LAMPETRA FLUVIATILIS (RIVER LAMPREY).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; CEPHALASPIDOMORPHI;
OC PETROMYZONTIFORMES; PETROMYZONTIDAE; LAMPETRA.

RP [1] SEQUENCE FROM N.A.
RC TISSUE-LEUKOCYTES.

RA NAKAKSHIN A.M., MECHETTIN L.V., ALABEV B.Y., TARANIN A.V.;
RT "Identification of the interleukin 8 homologue in lamprey (Lampetra
RT fluviatilis): early evolutionary divergence of chemokines.";
RL SUBMITTED (JUL-1998) TO EMBL/GENBANK/DBJ DATA BANKS.

DR EMBL: AJ231072; E1313821; -;
KW SIGNAL.
FT SIGNAL. 1 22 POTENTIAL.
FT CHAIN 23 101 LFCA-1 PROTEIN.
SQ SEQUENCE 101 AA; 11095 MW; E4A1E20F CRC32;

Query Match 62.4%; Score 63; DB 13; Length 101;
Best Local Similarity 50.0%; Pred. No. 1.97e-01;
Matches 6; Conservative 3; Mismatches 3; Indels 0; Gaps 0;

Db 73 QICLPDAPWVR 84
:|||||
OY 1 EICLDPKQKVV 12

RESULT 16
ID 093238; PRELIMINARY; PRT; 101 AA.

AC 093238;
DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CC CHEMOKINE-1.

OS CYPRINUS CARPIO (COMMON CARP).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ACTINOPTERYGII; NEOPTERYGII;
OC TELEOSTEI; EUTELEOSTEI; OSTARIOPHYSI; CYPRINIFORMES; CYPRINOIDEA;
OC CYPRINIDAE; CYPRININAE; CYPRINUS.

RP [1] SEQUENCE FROM N.A.
RA FUJIKI K., NAKAO M., SHIN D., YANO T.;
RT "cDNA cloning of a carp CC chemokine homologous to mammalian
RT eotaxins.";

RL SUBMITTED (JAN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AB010469; D1032417; -;
SQ SEQUENCE 101 AA; 11266 MW; 9CFBD540 CRC32;

Query Match 61.4%; Score 62; DB 13; Length 101;
Best Local Similarity 63.6%; Pred. No. 3.16e-01;
Matches 7; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 72 EECSDPKLWV 82
:|:|:|:|:|
OY 1 EICLDPKQKVV 11

RESULT 17
ID 043646; PRELIMINARY; PRT; 91 AA.

AC 043646;
DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE RANTES PRECURSOR.

OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.

RP [1] SEQUENCE FROM N.A.
RA JANG J.S., KIM B.E.;
RL SUBMITTED (JAN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.

RT "Structure of a region of 181 kb containing five CC chemokine genes.";
RL SUBMITTED (AUG-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AF043341; G2905632; -;
DR EMBL: AF088219; G3719366; -;
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.

KW SIGNAL.
FT SIGNAL. 1 23 POTENTIAL.

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FT CHAIN 24 91 RANTES-
SQ SEQUENCE 91 AA: 9990 MM: CF404FAD CRC32:
Query Match 60.4%; Score 61; DB 4; Length 91;
Best Local Similarity 41.7%;
Matches 5; Conservative 4; Mismatches 3; Indels 0; Gaps 0;

Db 71 QVCANPEKKWR 82
:|:|:|:|:
QY 1 EICLDPKQKQWQ 12

RESULT 18
ID 043927; PRELIMINARY; PRT: 109 AA.
AC 043927;
DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CXC CHEMOKINE PRECURSOR.
CN BCL-1.
OS HOMO SAPIENS (HUMAN).
OC EUAROTIA; METAEOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE; 98130629.
RA LEBLER D.F., LOETSCHER M., STUBER ROOS R., CLARK-LEWIS I.,
RA BAGGIOLINI M., MOSER B.;
RT "B cell-attracting chemokine 1, a human CXC chemokine expressed in
RT lymphoid tissues, selectively attracts B lymphocytes via BLRL/CXCR5.";
RL J. EXP. MED. 187:655-660(1998).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE; 9816056.
RA GUNN M.D., NGO V.N., ANSEL K.M., EKLAND E.H., CYSTER J.G.,
RA WILLIAMS L.T.;
RT "A B-cell-homing chemokine made in lymphoid follicles activates
RT Burkitt's lymphoma receptor-1.";
RL NATURE 391:799-803(1998).
RN [3]
RP SEQUENCE FROM N.A.
RA NAPOLITANO M., SPINETTI G., GAETANO C., CAPOGROSSI C.M.;
RL SUBMITTED (OCT-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; AF040221; E1249325; -
DR EMBL; AF044197; G2911376; -
DR EMBL; AF029894; G3169814; -
KW SIGNAL.
FT SIGNAL. 1 22 POTENTIAL.
FT CHAIN 23 109 POTENTIAL.
SQ SEQUENCE 109 AA: 12664 MM: BESAA6BC CRC32:

Query Match 60.4%; Score 61; DB 4; Length 109;
Best Local Similarity 45.5%; Pred. No. 5.06e-01;
Matches 5; Conservative 3; Mismatches 3; Indels 0; Gaps 0;

Db 75 VCVDPQAEWQ 85
:|:|:|:|:|
QY 2 ICLDPKQKQWQ 12

RESULT 19
ID 098158 PRELIMINARY; PRT: 95 AA.
AC 098158; 012569;
DT 01-FEB-1997 (TREMBLREL. 02, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE ORF K6.
OS KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS.
OC VIRUSES; DSDNA VIRUSES, NO RNA STAGE; HERPESVIRIDAE;
OC GAMMAHERPESVIRINAE; RHADINOVIRUS.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE; 97094384.

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RA MOORE P.S., BASHOFF C., WEISS R.A., CHANG Y.;
RT "Molecular mimicry of human cytokine and cytokine response pathway
RT genes by KSHV.";
RL SCIENCE 274:1739-1744(1996).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE; 97121480.
RA RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
RT "Nucleotide sequence of the Kaposi sarcoma-associated herpesvirus
RT (HHV8).";
RL PROC. NATL. ACAD. SCI. U.S.A. 93:14862-14867(1996).
RN [3]
RP SEQUENCE FROM N.A.
RA RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
RL SUBMITTED (OCT-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [4]
RP SEQUENCE FROM N.A.
RA NICHOLAS J., RUVOLO V.R., BURNS W.H., SANFORD G., WAN X., CIUFFO D.,
RA HENDRICKSON S., GUO H.G., HAYWARD G.S., REITZ M.S.;
RL SUBMITTED (NOV-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [5]
RP SEQUENCE FROM N.A.
RA RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [6]
RP SEQUENCE FROM N.A.
RX MEDLINE; 97296220.
RA NEIPEL F., ALBRECHT J.C., FLECKENSTEIN B.;
RT "Cell-homologous genes in the Kaposi's sarcoma-associated rhadinovirus
RT human herpesvirus 8: determinants of its pathogenicity?";
RL J. VIROL. 71:4187-4192(1997).
RN [7]
RP SEQUENCE FROM N.A.
RA SUN R., LIN S.-F., MILLER G.;
RL SUBMITTED (SEP-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; U75698; G1718266; -
DR EMBL; U74585; G1658273; -
DR EMBL; U93872; G2246546; -
DR EMBL; U71366; G3551763; -
DR PFAM; PF00048; I18; 1.
KW HYPOTHEICAL PROTEIN.
SQ SEQUENCE 95 AA: 10485 MM: 5283348D CRC32:

Query Match 59.4%; Score 60; DB 14; Length 95;
Best Local Similarity 50.0%; Pred. No. 8.07e-01;
Matches 6; Conservative 3; Mismatches 3; Indels 0; Gaps 0;

Db 74 QICADPSKRWYR 85
:|:|:|:|:|
QY 1 EICLDPKQKQWQ 12

RESULT 20
ID 067634 PRELIMINARY; PRT: 203 AA.
AC 067634;
DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE ECO Q PROTEIN (FRAGMENT).
OS GALLID HERPESVIRUS TYPE 1.
OC VIRUSES; DSDNA VIRUSES, NO RNA STAGE; HERPESVIRIDAE;
OC ALPHAHERPESVIRINAE; VARICELLOVIRUS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-GA.
RX MEDLINE; 96074534.
RA PENG Q., ZENG M., BHUIYAN Z.A., UBUKATA E., TANAKA A., NONOYAMA M.,
RA SHIRAZI Y.;
RT "Isolation and characterization of Marek's disease virus (MDV) cDNAs
RT mapping to the BamHI-12, BamHI-Q2, and BamHI-L fragments of the MDV

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RT genome from Lymphoblastoid cells transformed and persistently infected
RL with MDV ";
DR VIROLOGY 213:590-599(1995).
DR EMBL: U34966; G1185444; -.
DR PFAM: PF00048; 118; 1.
FT NON_TER
SQ SEQUENCE 203 AA; 23132 MW; 887D04C3 CRC32;

Query Match
Best Local Similarity 59.4%; Score 60; DB 14; Length 203;
Matches 6; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

Db 145 VCADPPEQWQ 155
OY 2 ICIDPKOKWQ 12

RESULT 21
ID P78423 PRELIMINARY; PRT; 397 AA.
AC P78423; 000672;
DT 01-MAY-1997 (TREMBLREL. 03, CREATED)
DT 01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)
DE CX3C CHEMOKINE PRECURSOR.
GN A-152E5.2.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 9717711.
RA BATAN J.F., BACON K.B., HARDMAN G., WANG W., SOO K., ROSSI D.,
RA GRAVES D.R., ZLOTNIK A., SCHALL T.J.;
RT "A new class of membrane-bound chemokine with a CX3C motif.";
RL NATURE 385:640-644(1997).
RN [2]
RP SEQUENCE FROM N.A.
RA ADAMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRMANN J., MASON T.M.,
RA BRANDON R., KIM U.J., KERLAVAGE A.R., VENTER J.C.;
RT "Homo sapiens chromosome 16 BAC clone C1987SK-A-152E5.";
RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: U91835; G1899259; -.
DR EMBL: U84487; G1888523; -.
DR EMBL: AC004382; G3252821; -.
DR PFAM: PF00048; 118; 1.
KW SIGNAL.
FT CHAIN
SQ SEQUENCE 397 AA; 42202 MW; C8093D7D CRC32;

Query Match
Best Local Similarity 59.4%; Score 60; DB 4; Length 397;
Matches 6; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 73 FCADPKEQWV 82
OY 2 ICIDPKOKWV 11

RESULT 22
ID 000626 PRELIMINARY; PRT; 93 AA.
AC 000626;
DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DE MACROPHAGE-DERIVED CHEMOKINE PRECURSOR.
GN MDC OR A-152E5.1.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RA GOSISKA R., CHANTRY D., RAPORT C.J., SOZZANI S., ALLAVENA P.,

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RA MANTOVANI A., GRAY P.W.;
RL J. EXP. MED. 185:0-0(0).
RN [2]
RP SEQUENCE FROM N.A.
RA CHANG M.S., MCNICH J., ELIAS III C., MANTHEY C.L., GROSSHANS D.,
RA MENG T., BOONE T., ANDREW D.P.;
RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [3]
RP SEQUENCE FROM N.A.
RA ADAMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRMANN J., MASON T.M.,
RA BRANDON R., KIM U.J., KERLAVAGE A.R., VENTER J.C.;
RT "Homo sapiens chromosome 16 BAC clone C1987SK-A-152E5.";
RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: U83171; G1931581; -.
DR EMBL: U83239; G2062425; -.
DR PFAM: PF00048; 118; 1.
KW SIGNAL.
FT CHAIN
SQ SEQUENCE 93 AA; 10580 MW; 65EA63D2 CRC32;

Query Match
Best Local Similarity 58.4%; Score 59; DB 4; Length 93;
Matches 7; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Db 74 EICADPPEWV 84
OY 1 EICIDPKOKWV 11

RESULT 23
ID 009006 PRELIMINARY; PRT; 133 AA.
AC 009006;
DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
DE 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE BETA CHEMOKINE EXODUS-2.
GN SCYA21.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCUROGNATHI; MURIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RX TISSUE-TOTAL FETUS;
RX MEDLINE: 97444139.
RA HROMAS R., KIM C.H., KLEMSZ M., KRATHWOHL M., FIFE K., COOPER S.,
RA SCHNITZLEIN-BICK C., BROXMEYER H.E.;
RT "Isolation and characterization of Exodus-2, a novel C-C chemokine
RT with a unique 37-amino acid carboxyl-terminal extension.";
RL J. IMMUNOL. 159:2554-2558(1997).
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE-TOTAL FETUS;
RA HROMAS R.A.;
RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: U88322; G3169697; -.
DR MGD; MGI:1097677; SCYA21.
DR PFAM: PF00048; 118; 1.
SQ SEQUENCE 133 AA; 14600 MW; B34A5E22 CRC32;

Query Match
Best Local Similarity 58.4%; Score 59; DB 11; Length 133;
Matches 6; Conservative 3; Mismatches 3; Indels 0; Gaps 0;

Db 73 EICADPPEWV 84
OY 1 EICIDPKOKWV 12

RESULT 24
ID 009002 PRELIMINARY; PRT; 133 AA.
AC 009002;

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DT 01-JUL-1997 (TREMREL. 04, CREATED)
 DT 01-JUL-1997 (TREMREL. 04, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMREL. 08, LAST SEQUENCE UPDATE)
 DE SMALL INDUCIBLE CYTOKINE A21 (TCA4).
 GN SCY21.
 OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
 OC SCIUROGNATHI; MURIDAE; MURINAE; MUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE=THYMUS;
 RA TANABE S., LU Z., LUO Y., QUACKENBUSH E.J., BERMAN M.A.,
 RA COLLINS-RACE L.A., MI S., REILLY C., LO D., JACOBS K.A., DORF M.E.;
 RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 97400322.
 RA HEDRICK J.A., ZLOTNIK A.;
 RT "Identification and characterization of a novel beta chemokine
 containing six conserved cysteines.";
 RT J. IMMUNOL. 159:1589-1593(1997).
 RL [3]
 RN [3]
 RP SEQUENCE FROM N.A.
 RA HEDRICK J.A., ZLOTNIK A.;
 RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RX EMBL; AF006637; G2209189; -;
 DR EMBL; AF001980; G2624927; -;
 DR MGI:1097677; SCY21.
 DR PFAM; PF00048; 118; 1.
 SO SEQUENCE 133 AA; 14558 MW; C0532523 CRC32;
 Query Match 58.4%; Score 59; DB 11; Length 133;
 Best Local Similarity 50.0%; Pred. No. 1.28e+00;
 Matches 6; Conservative 3; Mismatches 3; Indels 0; Gaps 0;
 Db 73 ELCANPEGWVQ 84
 QY 1 EICLDPKQKWQ 12
 RESULT 25
 ID 002426 PRELIMINARY; PRT; 584 AA.
 AC 002426;
 DT 01-JUL-1997 (TREMREL. 04, CREATED)
 DT 01-JUL-1997 (TREMREL. 04, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMREL. 08, LAST SEQUENCE UPDATE)
 DE SNAIL HOMOLOG.
 GN CI-SNAIL.
 OS CIOMA INTERSTITIALIS.
 OC EUKARYOTA; METAZOA; CHORDATA; UROCHORDATA; ASCIDIACEA; PHLEBOBRANCHIA;
 OC CLONIDAE; CIOMA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA CORBO J.C., ERIVES A., DI GREGORIO A., CHANG A., LEVINE M.;
 RL DEVELOPMENT 0:0-0(0).
 DR EMBL; AF002987; G2196753; -;
 DR PROSITE; PS00028; ZINC_FINGER_C2H2; 4.
 DR PFAM; PF00096; ZF-C2H2; 5.
 KW ZINC-FINGER; METAL-BINDING; DNA-BINDING.
 SO SEQUENCE 584 AA; 64756 MW; BIDE5647 CRC32;
 Query Match 58.4%; Score 59; DB 5; Length 584;
 Best Local Similarity 54.5%; Pred. No. 1.28e+00;
 Matches 6; Conservative 2; Mismatches 3; Indels 0; Gaps 0;
 Db 397 VCLDSKTTWRQ 407
 QY 2 ICLDPKQKWQ 12
 RESULT 26
 ID 082387 PRELIMINARY; PRT; 535 AA.
 AC 082387;

DT 01-NOV-1998 (TREMREL. 08, CREATED)
 DT 01-NOV-1998 (TREMREL. 08, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMREL. 08, LAST SEQUENCE UPDATE)
 DE PUTATIVE CELL DIVISION PROTEIN.
 GN T27A16.22.
 OS ARABIDOPSIS THALIANA (MOUSE-EAR CRESS).
 OC EUKARYOTA; VIRIDIPHYTES; CHAROPHYTA/EMBRYOPHYTA GROUP; EMBRYOPHYTA;
 OC TRACHEOPHYTES; EUPHYLOPHYTES; SPERMATOPHYTES; MAGNOLIOPHYTA;
 OC EUDICOTYLEDONS; ROSIDAE; CAPPARIDAE; BRASSICACEAE; ARABIDOPSIS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN=CV. COLUMBIA;
 RA ROUNSELEY S.D., LIN X., KAUL S., SHEA T.P., FUJII C.Y., MASON T.M.,
 RA SHEN M., ROUNNIG C.M., FRASER C.M., SOMERVILLE C.R., VENTER J.C.;
 RT "Arabidopsis thaliana chromosome II BAC t27A16 genomic sequence.";
 RL SUBMITTED (SEP-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL; AC005496; G3582344; -;
 KW CELL DIVISION.
 SO SEQUENCE 535 AA; 59484 MW; 8AF744C7 CRC32;
 Query Match 57.4%; Score 58; DB 10; Length 535;
 Best Local Similarity 55.6%; Pred. No. 2.02e+00;
 Matches 5; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
 Db 97 VCLEVSKW 105
 QY 2 ICLDPKQKWQ 10
 RESULT 27
 ID P70357 PRELIMINARY; PRT; 201 AA.
 AC P70357;
 DT 01-FEB-1997 (TREMREL. 02, CREATED)
 DT 01-FEB-1997 (TREMREL. 02, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMREL. 08, LAST SEQUENCE UPDATE)
 DE PLASMA RETINOL-BINDING PROTEIN PRECURSOR (RBP) (RBP).
 GN RBP.
 OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
 OC SCIUROGNATHI; MURIDAE; MURINAE; MUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN=B6/CBAF1;
 RA JESSEN K.A., SAIRE M.A.;
 RL SUBMITTED (JUL-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
 CC -1- FUNCTION: RBP DELIVERS RETINOL FROM THE LIVER STORES TO THE
 PERIPHERAL TISSUES. IN PLASMA, THE RBP-RETINOL COMPLEX INTERACTS
 WITH TRANSTHYRETIN. THIS PREVENTS ITS LOSS BY FILTRATION THROUGH
 THE KIDNEY GLOMERULI.
 CC -1- SIMILARITY: BELONGS TO THE LIPOCALIN FAMILY.
 DR EMBL; U63146; G1515450; -;
 DR PROSITE; PS00213; LIPOCALIN; 1.
 DR PFAM; PF00061; Lipocalin; 1.
 KW PLASMA; VITAMIN A; RETINOL-BINDING; TRANSPORT; LIVER; SIGNAL;
 KW LIPOCALIN.
 FT SIGNAL 1 18 BY SIMILARITY.
 FT CHAIN 19 201 PLASMA RETINOL-BINDING PROTEIN.
 FT DISULFID 22 178 BY SIMILARITY.
 FT DISULFID 138 147 BY SIMILARITY.
 SO SEQUENCE 201 AA; 23206 MW; AA915F05 CRC32;
 Query Match 56.4%; Score 57; DB 11; Length 201;
 Best Local Similarity 33.3%; Pred. No. 3.17e+00;
 Matches 4; Conservative 5; Mismatches 3; Indels 0; Gaps 0;
 Db 176 ELCLERQYRWE 187
 QY 1 EICLDPKQKWQ 12
 RESULT 28
 ID 017348 PRELIMINARY; PRT; 331 AA.
 AC 017348;

DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
 DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE H42K12.2 PROTEIN.
 GN H42K12.2.
 OC CAENORHABDITIS ELEGANS.
 OC EUKARYOTA; METAZOA; NEMATODA; SECERNENTEA; RHABDITIA; RHABDITIDA;
 OC RHABDITINA; RHABDITOIDEA; RHABDITIDAE; PELODERINAE; CAENORHABDITIS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-BRISTOL N2;
 RX MEDLINE: 94150718.
 RA WILKINSON-SPROUT J., WATSON A., WEINSTOCK L.,
 RA BURTON J., CONNELL M., COPSEY T., COOPER J., COULSON A., CRAFTON M.,
 RA DEAR S., DU Z., DUBREIN R., FAVELLO A., FULTON L., GARDNER A., GREEN P.,
 RA HAWKINS T., HILLIER T., JIER M., JOHNSTON L., JONES M., KERSHAW J.,
 RA KIRSTEN J., LAISTER N., LATREILLE P., LIGHTNING J., LLOYD C.,
 RA MCMURRAY A., MORTIMORE B., O'CALLAGHAN M., PARSONS J., PERCY C.,
 RA RIEKEN L., ROOPRA A., SAUNDERS D., SHOWNKEEN R., SMALDON N., SMITH A.,
 RA SONNHAMMER E., STADEN R., SUISTON J., THIERRE-MIEG J., THOMAS K.,
 RA VAUDIN M., VAUGHAN K., WATERSTON R., WATSON A., WEINSTOCK L.,
 RA WILKINSON-SPROUT J., WOHLDMAN P.;
 RT "2.2 Mb of contiguous nucleotide sequence from chromosome III of C.
 RT elegans.";
 RL NATURE 368:32-38(1994).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC STRAIN-BRISTOL N2;
 RA MAGGI L., HARPER M.;
 RL SUBMITTED (OCT-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [3]
 RP SEQUENCE FROM N.A.
 RC STRAIN-BRISTOL N2;
 RL WATERSTON R.;
 RL SUBMITTED (SEP-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: AF026207; G2435555; -
 SQ SEQUENCE 331 AA; 36627 MW; EA4C85EB CRC32;

Query Match
 Best Local Similarity 40.0%; Score 57; DB 5; Length 331;
 Pred. No. 3.17e+00;
 Matches 4; Conservative 4; Mismatches 2; Indels 0; Gaps 0;

Db 126 NCCLSPERRW 135
 QY 1 EICLDPKQKW 10

RESULT 29
 ID 099126 PRELIMINARY; PRT; 760 AA.
 AC 099126;
 DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
 DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
 DT 01-MAY-1997 (TREMBLREL. 03, LAST ANNOTATION UPDATE)
 DE CHITIN SYNTHETASE I.
 GN CHS1
 OS USTILAGO MAYDIS (SMUT FUNGUS).
 OC EUKARYOTA; FUNGI; BASIDIOMYCOTA; USTILAGINOMYCETES;
 OC USTILAGINOMYCETIDAE; USTILAGINALES; USTILAGINACEAE; USTILAGO.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-RK32 (A2B3);
 RA XOCOSOSTLE-CAZARES B., LEON-RAMIREZ C., RUIZ-HERRERA J.;
 RL MICROBIOLOG 142:377-387(1996).
 DR EMBL: X87748; G861151; -
 SQ SEQUENCE 760 AA; 85181 MW; 2F2AC4C9 CRC32;

Query Match
 Best Local Similarity 56.4%; Score 57; DB 3; Length 760;
 Pred. No. 3.17e+00;
 Matches 6; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Db 483 EICATETGKW 492
 QY 1 EICLDPKQKW 10

RESULT 30
 ID 064975 PRELIMINARY; PRT; 158 AA.
 AC 064975;
 DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
 DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE PUTATIVE DISEASE RESISTANCE PROTEIN (FRAGMENT).
 OS ARABIDOPSIS THALIANA (MOUSE-EAR CRESS).
 OC EUKARYOTA; VIRIDIPANTAE; CHAROPHYTA/EMBRYOPHYTA GROUP; EMBRYOPHYTA;
 OC TRACHEOPHYTA; EUPHYLOPHYTES; SPERMATOPHYTA; MAGNOLIOPHYTA;
 OC EUDICOTYLEDONS; ROSIDAE; CAPPARALES; BRASSICACEAE; ARABIDOPSIS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-CV, LANDSBERG ERECTA;
 RX MEDLINE: 98191999.
 RA AARTS M.G., TE LINTPEL HEKKERT B., HOUUB E.B., BEYNON J.L.,
 RA STIEREMA W.J., PEREIRA A.;
 RT "Identification of R-gene homologous DNA fragments genetically linked
 RT to disease resistance loci in Arabidopsis thaliana.";
 RL MOL. PLANT MICROBE INTERACT. 11:251-258(1998).
 DR EMBL: AF039381; G3075472; -
 RL NON_TER 1 1
 FT NON_TER 1 1
 SQ SEQUENCE 158 AA; 18235 MW; 12D846C9 CRC32;

Query Match
 Best Local Similarity 55.4%; Score 56; DB 10; Length 158;
 Pred. No. 4.95e+00;
 Matches 4; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 121 CLDPERRW 128
 QY 3 CLDPKQKW 10

Search completed: Thu Apr 1 07:34:46 1999
 Job time : 31 secs.

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Msrch_pp protein - protein database search, using Smith-Waterman algorithm
Run on: Thu Apr 1 07:38:21 1999; Msrch time 2.83 Seconds
Tabular output not generated. 68.511 Million cell updates/sec

Title: >US-08-927-939-11
Description: (1-12) from US08927939.pep
Perfect Score: 94
Sequence: 1 EICADPSQKWQV 12

Scoring table:
PAM 150
Gap 15

Searched: 131922 segs, 16180660 residues

Post-processing: Minimum Match 0%
Listing first 100 summaries

Database: a-geneseq32
1:part1 2:part2 3:part3 4:part4 5:part5 6:part6 7:part7
8:part8 9:part9 10:part10 11:part11 12:part12 13:part13
14:part14 15:part15 16:part16 17:part17 18:part18
19:part19 20:part20 21:part21 22:part22 23:part23
24:part24 25:part25 26:part26 27:part27 28:part28
29:part29

Statistics: Mean 18.171; Variance 62.168; scale 0.292

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Length	ID	Description	Pred. No.
1	92	97.9	67 14 R73915	Human monocyte chemoa	1.23e-02
2	92	97.9	99 13 R70801	Chemottractant prote	1.23e-02
3	92	97.9	109 2 R24353	Cytokine encoded by c	1.23e-02
4	89	94.7	66 24 W13598	Monocyte chemottract	2.57e-02
5	89	94.7	67 24 W13597	Monocyte chemottract	2.57e-02
6	89	94.7	68 24 W13597	Monocyte chemottract	2.57e-02
7	89	94.7	69 24 W13596	Monocyte chemottract	2.57e-02
8	89	94.7	69 14 R87676	des(2-8) MCP-1.	2.57e-02
9	89	94.7	76 14 R87676	(24-Arg) MCP-1.	2.57e-02
10	89	94.7	76 20 W09374	Monocyte chemotacti	2.57e-02
11	89	94.7	76 10 R53398	Sense MCP-1.	2.57e-02
12	89	94.7	76 14 R87675	(28-asp) MCP-1.	2.57e-02
13	89	94.7	76 21 W11131	Mature human monocyte	2.57e-02
14	89	94.7	76 14 R87677	(3-Ala) MCP-1.	2.57e-02
15	89	94.7	76 1 P90292	Peptide from human g1	2.57e-02
16	89	94.7	76 15 R87680	Monocyte chemotacti	2.57e-02
17	89	94.7	76 5 R28660	MCF.	2.57e-02
18	89	94.7	77 15 R86859	Mature MCP-1.	2.57e-02

19	89	94.7	99 14 R73914	Human monocyte chemoa	2.57e-02
20	89	94.7	99 5 R28663	MCF.	2.57e-02
21	89	94.7	99 13 R70800	Chemottractant prote	2.57e-02
22	89	94.7	99 2 P95387	Human monocyte chemo-	2.57e-02
23	85	90.4	71 27 W22675	Dro3+ chemokine beta	6.85e-02
24	85	90.4	75 27 W22673	Bac 3 chemokine beta	6.85e-02
25	85	90.4	77 27 W22672	Bac 2 chemokine beta	6.85e-02
26	85	90.4	79 27 W22674	Dro11/2 chemokine bet	6.85e-02
27	85	90.4	82 27 W22671	Bac 1 chemokine beta	6.85e-02
28	85	90.4	82 24 W17665	Stem cell mobilising	6.85e-02
29	85	90.4	98 17 R39087	Human chemokine beta-	6.85e-02
30	85	90.4	98 28 W30191	Monocyte chemotacti	6.85e-02
31	85	90.4	98 27 W22670	Human chemokine beta	6.85e-02
32	85	90.4	99 2 R06398	Human MCF precursor.	6.85e-02
33	84	89.4	76 5 R26580	Sequence of bovine p6	8.74e-02
34	84	89.4	99 5 R26581	Sequence of p6 precu	8.74e-02
35	82	87.2	69 7 R39137	LD78 GLU55>Glu, Glu56	1.42e-01
36	81	86.2	60 24 W17662	Stem cell mobilising	1.81e-01
37	81	86.2	82 29 W44721	Antio acid sequence o	1.81e-01
38	81	86.2	89 14 R76127	Macrophage inflamat	1.81e-01
39	81	86.2	89 21 W07204	Human cytokine beta-1	1.81e-01
40	81	86.2	89 25 W23643	Human dendritic cell	1.81e-01
41	81	86.2	97 21 W00667	Pancreas expressed ch	1.81e-01
42	81	86.2	97 23 W10099	Human ectoxin.	1.81e-01
43	81	86.2	97 24 W14990	Human eosinocyte CC t	1.81e-01
44	80	85.1	69 7 R38926	LD78 Gln48>Glu, Gln48	2.30e-01
45	80	85.1	69 7 R38940	LD78 Phe28>Arg, Glu56	2.30e-01
46	80	85.1	69 7 R38942	LD78 GLU55>Arg, Glu56	4.73e-01
47	81	81.9	64 7 R39081	LD78 C65-69.	4.73e-01
48	77	81.9	66 7 R38951	ML-3 LD78 Thr15>Phe.	4.73e-01
49	77	81.9	69 7 R39114	LD78 Ser63>Ala.	4.73e-01
50	77	81.9	69 7 R38934	LD78 Ile24>Thr.	4.73e-01
51	77	81.9	69 7 R38979	LD78 Arg45>Ser.	4.73e-01
52	77	81.9	69 7 R39086	LD78 Glu66>Ser.	4.73e-01
53	77	81.9	69 7 R38944	LD78 Gln18>Glu.	4.73e-01
54	77	81.9	69 7 R39107	LD78 Thr6>Ala.	4.73e-01
55	77	81.9	69 7 R39131	LD78 Leu67>Asp.	4.73e-01
56	77	81.9	69 7 R38931	LD78 Phe23>Asn, Ile24	4.73e-01
57	77	81.9	69 7 R39084	LD78 Lys36>Ser.	4.73e-01
58	77	81.9	69 7 R39085	LD78 Leu65>Ala.	4.73e-01
59	77	81.9	69 7 R38981	LD78 Glu56>Ser.	4.73e-01
60	77	81.9	69 7 R38932	LD78 Asp26>Ala.	4.73e-01
61	77	81.9	69 7 R38930	LD78 Arg17>Ser.	4.73e-01
62	77	81.9	69 7 R39112	LD78 Tyr27>Ala.	4.73e-01
63	77	81.9	69 7 R38960	LD78 Ser13>Ala.	4.73e-01
64	77	81.9	69 7 R38976	LD78 Asp5>Ser.	4.73e-01
65	77	81.9	69 7 R39088	LD78 Ser1>Ala.	4.73e-01
66	77	81.9	69 7 R38954	LD78 Phe12>Ala.	4.73e-01
67	77	81.9	69 7 R39091	LD78 Ser31>Ala.	4.73e-01
68	77	81.9	69 7 R39096	LD78 Ser13>Ala.	4.73e-01
69	77	81.9	69 7 R38969	LD78 Ser46>Ala.	4.73e-01
70	77	81.9	69 7 R39104	LD78 Pro37>Ala.	4.73e-01
71	77	81.9	69 7 R39101	LD78 Ser68>Ala.	4.73e-01
72	77	81.9	69 7 R39102	LD78 Tyr14>Ala.	4.73e-01
73	77	81.9	69 7 R39132	LD78 Asp64>Arg.	4.73e-01
74	77	81.9	69 7 R39117	LD78 Ala25>Ser.	4.73e-01
75	77	81.9	69 7 R38972	LD78 Ala4>Ser.	4.73e-01
76	77	81.9	69 7 R38938	LD78 Phe28>Glu.	4.73e-01
77	77	81.9	69 7 R38941	LD78 Phe28>Glu, Arg47	4.73e-01
78	77	81.9	69 7 R38977	LD78 Phe23>Ala.	4.73e-01
79	77	81.9	69 7 R39115	LD78 Thr15>Ala.	4.73e-01
80	77	81.9	69 7 R38961	LD78 Asp5>Arg.	4.73e-01
81	77	81.9	69 7 R38936	LD78 Arg47>Glu.	4.73e-01
82	77	81.9	69 7 R38935	LD78 Ile40>Arg.	4.73e-01
83	77	81.9	69 7 R39127	LD78 Thr61>Asp.	4.73e-01
84	77	81.9	69 7 R39118	LD78 Thr30>Ala.	4.73e-01
85	77	81.9	69 7 R38983	LD78 Asp64>Ser.	4.73e-01
86	77	81.9	69 7 R39145	LD78 Ile24>Val.	4.73e-01
87	77	81.9	69 7 R39110	LD78 Pro7>Ala.	4.73e-01
88	77	81.9	69 7 R38965	LD78 Ala3>Glu.	4.73e-01
89	77	81.9	69 7 R39111	LD78 Thr8>Ala.	4.73e-01
90	77	81.9	69 7 R38970	LD78 Leu2>Ala.	4.73e-01
91	77	81.9	69 7 R38929	LD78 Phe28>Ser.	4.73e-01

92 77 81.9 70 7 R39136 LD78 CYS10, CYS11 > C 4.73e-01
 93 77 81.9 70 7 R38949 Ala-Ser1>Pro LD78 4.73e-01
 94 77 81.9 72 7 R38950 Leu-Ser-Ala-Ser1>Pro 4.73e-01
 95 77 81.9 74 7 R38925 Act-2 4.73e-01
 96 77 81.9 74 7 R38923 LD78 4.73e-01
 97 77 81.9 91 1 P91030 Human H400 polypeptid 4.73e-01
 98 77 81.9 92 1 R04221 Protein encoded by pA 4.73e-01
 99 77 81.9 92 7 R36769 MIP-1alpha 4.73e-01
 100 77 81.9 92 7 R36770 MIP-1beta 4.73e-01

ALIGNMENTS

RESULT 1
 ID R73915 standard; protein; 67 AA.

AC R73915; 05-DEC-1995 (first entry)
 DE Human monocytic chemoattractant factor hMCP-3.
 KW Human monocytic chemoattractant factor; hMCP-3; chemokine; vaccine;
 KW meningitis related homologous antigenic sequence; MRHAS; RV-1;
 KW immunoassay; diagnosis; treatment; prophylactic; bacterial;
 KW viral.
 OS Homo sapiens.
 PN WO9509232-A.
 PD 06-APR-1995.
 PE 28-SEP-1994; CA0516.
 PR 28-SEP-1993; US-127499.
 RA (SHAR/) SHARMA L R.
 PA (VALS/) VAN ALSTYNE D.
 PI Sharma LR, Van Alstyne D;
 DE WPI: 95-147431/19.
 DE New peptide(s) and corresp. antibodies for the treatment of
 PT meningitis - the peptide(s) corresp. to homologous antigenic
 PT sites on bacterial and viral agents and on chemokine(s), used for
 PT detecting and preventing meningitis
 PS Claim 47; Fig 8/10; 98PP; English.
 CC R73915 is the chemokine Human monocytic chemoattractant factor hMCP-3.
 CC It contains the meningitis related antigenic sequences (MRHAS) claimed
 CC in R73896 and R73908, which are recognised by a monoclonal antibody
 CC from the hybridoma Rubella virus (RV)-1. The claimed MRHAS peptides
 CC may be used in immunoassays to diagnose the presence of bacterial
 CC and/or viral meningitis agents in a sample, or in prophylactic and
 CC therapeutic meningitis treatments. The peptides may also be used as
 CC vaccines against meningitis.
 CC NB: Identified by matching corresponding MRHAS peptides.
 SQ Sequence 67 AA;

Query Match 97.9%; Score 92; DB 14; Length 67;
 Best Local Similarity 91.7%; Pred. No. 1.23e-02;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 41 eicadptqkwq 52
 |||||:||||
 QY 1 EICADPSQKWQ 12

RESULT 2

ID R70801 standard; protein; 99 AA.

AC R70801; 29-AUG-1995 (first entry)
 DE Chemoattractant protein MCP-3.
 KW MCP-3; chemoattractant; heparanase; heparin; heparan sulfate;
 KW arthritis; restenosis; cancer; wound healing.
 OS Homo sapiens.
 PN WO9504158-A.
 PD 09-FEB-1995.
 PE 26-JUL-1994; U08207.
 PR 29-JUL-1993; US-099866.
 PR 13-OCT-1993; US-136117.
 PA (UPJO) UPJOHN CO.
 PI Hoogwerf AJ, Ledbetter SR,
 DE WPI: 95-082239/11.
 DR N-PSDB; Q85371.

PT Screening for cpds. with anti-heparanase activity - by detecting
 PT inhibition of heparin or heparan sulphate degradation,
 PT potentially useful for treating arthritis, restenosis, cancer.
 PS Claim 13; Page 50; 60pp; English.
 CC Purified heparanases, prepared under reducing conditions and
 CC activated with transglutaminase, are given in R70786-801. Most
 CC are prepared by reverse transcription of mRNA from activated human
 CC leukocytes, then cloning of the cDNA into pVL1392 baculovirus
 CC vector, and expression in Sf9 cells in the presence of reduced
 CC glutathione and dithiothreitol.
 SQ Sequence 99 AA;

Query Match 97.9%; Score 92; DB 13; Length 99;
 Best Local Similarity 91.7%; Pred. No. 1.23e-02;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 73 eicadptqkwq 84
 |||||:||||
 QY 1 EICADPSQKWQ 12

RESULT 3

ID R24353 standard; Protein; 109 AA.
 AC R24353;
 DE 26-NOV-1992 (first entry)
 DE Cytokine encoded by clone NC28.
 KW Cytokine; plasmid pSEL; HTLV-1; human T-lymphocyte virus;
 KW mouse; alpha-globin; E.coli cloning vector; ss.
 OS Synthetic.
 FH Key location/Qualifiers
 FT peptide 1..33
 FT /label= signal
 FT /note= "includes 3 potential initiation sites"
 FT protein 34..109
 FT /label= cytokine
 FT modified_site 39..41
 FT /label= N-glycosylation
 FT /note= "putative"

EP-488900-A.
 PD 03-JUN-1992.
 PR 29-NOV-1991; 403243.
 PR 29-NOV-1990; FR-014961.
 PA (ERAP) ELF SANOFI.
 PA (SNFI) SANOFI SA.
 PI Caput D, Ferrera P, Miloux B, Miny A, Vita N;
 DE WPI: 92-185765/23.
 DR N-PSDB; Q25259.
 PT New monocytic chemoattractant cytokine - for treatment of cancer
 PT and parasitic infections, e.g. leishmaniasis, leprosy or Chagas
 PT disease

PS Claim 1; Fig 2; 45pp; French.
 CC This protein is encoded by the NC28 clone isolated from
 CC peripheral blood mononuclear cells stimulated with phorbol
 CC 2-myristate-3-acetate (see Q25259). The mature protein is claimed.
 CC It can be N-terminally deleted such that the mature protein starts
 CC at Val 3 or at Lys 19. The leader sequence is active in animal
 CC cells. See Q25258-Q25262.
 SQ Sequence 109 AA;

Query Match 97.9%; Score 92; DB 2; Length 109;
 Best Local Similarity 91.7%; Pred. No. 1.23e-02;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 83 eicadptqkwq 94
 |||||:||||
 QY 1 EICADPSQKWQ 12

RESULT 4

ID W13598 standard; peptide; 66 AA.
 AC W13598;
 DE 07-NOV-1997 (first entry)
 DE Monocyte chemoattractant protein analogue MCP-1 (10-76).

DR WPI: 97-165844/16.
 PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
 PT lacks MCP-1 activity and inhibits receptor binding, useful as
 PT anti-inflammatory agent
 PS Claim 5; Page 5; 27pp; English.
 CC The present sequence represents an analogue, MCP-1 (8-76), of monocyte
 CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
 CC N-terminal amino acids 1-7 of MCP-1, acts as an antagonist of MCP-1
 CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
 CC receptor. The analogue is useful as an anti-inflammatory agent to block
 CC the effects of MCP-1 which is an inflammatory mediator causing migration
 CC of monocytes and other cells e.g. basophils and lymphocytes into
 CC inflammation sites. MCP-1 has been implicated in allergic and chronic
 CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
 CC diseases. The analogue competes more effectively with MCP-1 for binding
 CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
 CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
 CC with 75:1 for prior art mutant 7ND.
 SQ Sequence 69 AA;

Query Match 94.7%; Score 89; DB 24; Length 69;
 Best Local Similarity 91.7%; Pred. No. 2.57e-02;
 Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 43 eicadpdkxwvq 54
 ||||| |||||
 QY 1 EICADPSQKMWQ 12

RESULT 8
 ID R87678 standard; protein; 69 AA.
 AC R87678;
 DT 21-FEB-1996 (first entry)
 DE des(2-8) MCP-1.
 KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
 KM angioplasty.
 OS Homo sapiens.
 FH Key
 FT modified_site Location/Qualifiers
 FT 2..3 /note= "amino acids 2-8 of the native protein have
 FT been deleted between these residues"
 FT disulfide_bond 4..29
 FT disulfide_bond 5..45
 PN W09513295-A1.
 PD 18-MAY-1995.
 PF 07-NOV-1994; U12874.
 PR 12-NOV-1993; US-152301.
 PA (DAND) DANA FARBER CANCER INST INC.
 PI Rollins B, Zhang YJ;
 DR WPI: 95-215051/28.
 PT Human monocyte chemoattractant protein-1 (MCP-1) derivs. - are
 PT capable of inhibiting the monocyte chemoattractant activity of
 PT endogenous MCP-1 and can be used to treat restenosis
 PS Claim 4; Page 11; 22pp; English.
 CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
 CC that they inhibit the monocyte chemoattractant activity of endogenous
 CC MCP-1, provided that the derivative has not been modified by the
 CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
 CC are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg
 CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
 CC acids 2-8. The present sequence is a specifically claimed human MCP-1
 CC derivative based on the parent protein disclosed in Rollins, Molecular
 CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
 CC The peptides can be used to prevent restenosis, e.g. in patients
 CC undergoing coronary artery angioplasty.
 SQ Sequence 69 AA;

Query Match 94.7%; Score 89; DB 14; Length 69;
 Best Local Similarity 91.7%; Pred. No. 2.57e-02;
 Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 Db 43 eicadpdkxwvq 54
 ||||| |||||

QY 1 EICADPSQKMWQ 12

RESULT 9
 ID R87676 standard; protein; 76 AA.
 AC R87676;
 DT 21-FEB-1996 (first entry)
 DE (24-Arg) MCP-1.
 KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
 KM angioplasty.
 OS Homo sapiens.
 FH Key
 FT modified_site Location/Qualifiers
 FT 24 /note= "Arg in the native sequence is replaced by Phe"
 FT disulfide_bond 11..36
 FT disulfide_bond 12..52
 PN W09513295-A1.
 PD 18-MAY-1995.
 PF 07-NOV-1994; U12874.
 PR 12-NOV-1993; US-152301.
 PA (DAND) DANA FARBER CANCER INST INC.
 PI Rollins B, Zhang YJ;
 DR WPI: 95-215051/28.
 PT Human monocyte chemoattractant protein-1 (MCP-1) derivs. - are
 PT capable of inhibiting the monocyte chemoattractant activity of
 PT endogenous MCP-1 and can be used to treat restenosis
 PS Claim 5; Page 11; 22pp; English.
 CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
 CC that they inhibit the monocyte chemoattractant activity of endogenous
 CC MCP-1, provided that the derivative has not been modified by the
 CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
 CC are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg
 CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
 CC acids 2-8. The present sequence is a specifically claimed human MCP-1
 CC derivative based on the parent protein disclosed in Rollins, Molecular
 CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
 CC The peptides can be used to prevent restenosis, e.g. in patients
 CC undergoing coronary artery angioplasty.
 SQ Sequence 76 AA;

Query Match 94.7%; Score 89; DB 14; Length 76;
 Best Local Similarity 91.7%; Pred. No. 2.57e-02;
 Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 50 eicadpdkxwvq 61
 ||||| |||||
 QY 1 EICADPSQKMWQ 12

RESULT 10
 ID W09374 standard; protein; 76 AA.
 AC W09374;
 DT 21-MAR-1997 (first entry)
 DE Monocyte chemoattractant protein 1.
 KW Human; monocyte chemoattractant protein; antisense; inhibition;
 KW mononuclear cell; lymphocyte; macrophage; smooth muscle cell;
 KW vascular restenosis.
 OS Homo sapiens.
 FH Key
 FT msc_difference 1 Location/Qualifiers
 FT /note= "encoded by codon CAG"
 FT msc_difference 51 /note= "encoded by codon AUG"
 FT msc_difference 65 /note= "encoded by codon CAC"
 PN US5571713-A.
 PD 05-NOV-1996.
 PF 22-OCT-1992; 965678.
 PR 22-OCT-1992; US-965678.
 PR 27-MAY-1994; US-250958.
 PA (UNMI) UNIV MICHIGAN.
 PI Kunkel SL, Lyle LR, Strieter RM;
 DR WPI: 96-505405/50.

DR N-PSDB: T48092.
 PT Anti-sense Monocyte Chemotactic Protein-1 oligo:nucleotide(s) -
 PS Useful for therapy or diagnosis of restenosis, etc.
 CC Disclosure; Column 13-14; 16pp; English.
 CC This is the amino acid sequence of the human monocyte chemoattractant
 CC protein (MCP)-1, a member of the C-C chemokine family. MCP-1 is a potent
 CC stimulator of monocyte chemotaxis and is produced by injured vascular
 CC smooth cells thus attracting monocytes and macrophages which infiltrate
 CC the injured area and release growth factor. This causes proliferation of
 CC the vascular smooth cells resulting in restenosis. The gene sequence can
 CC be used to generate antisense sequences e.g. T48093-7, which can be used
 CC to inhibit in vitro MCP-1 prodn. by mononuclear cells e.g. lymphocytes or
 CC macrophages, or smooth muscle cells, esp. in order to prevent vascular
 CC restenosis.
 SQ Sequence 76 AA;

Query Match 94.7%; Score 89; DB 20; Length 76;
 Best Local Similarity 91.7%; Pred. No. 2,57e-02;
 Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 50 elcadpdkqkvwq 61
 ||||| |||||
 QY 1 EICADPSQKRWQ 12

RESULT 11
 ... R53398 standard; Protein; 76 AA.
 AC R53398;
 DT 15-DEC-1994 (first entry)
 DE Sense MCP-1.
 KW Antisense; RNA; DNA; monocyte chemotactic protein-1; MCP-1;
 KM radionuclide; vascular restenosis; alpha; beta; emitting isotope;
 KW diagnosis; monocytes; vascular injury.
 OS Mammalian.
 FT Key Location/Qualifiers
 FT misc_difference 1 /note="Unspecified amino acid"
 FT FT
 PN WO9409128-A.
 PD 28-APR-1994.
 PF 20-OCT-1993; U10074.
 PR 22-OCT-1992; US-965678.
 PA (MLCW) MALLINCKRODT MEDICAL INC.
 PI Lyle LR;
 DR WPI: 94-151314/18.
 PT Anti-sense monocyte chemotactic protein-1 oligo:nucleotide(s) and
 PT peptide(s) - is used for inhibiting, treating or imaging areas of
 PT vascular restenosis or potential restenosis
 PS Disclosure; Page 5; 42pp; English.
 CC The sequences given in R53398-99 represent sense and antisense
 CC monocyte chemotactic protein-1 (MCP-1) respectively. These
 CC oligonucleotides may be labelled with a radionuclide and use
 CC therapeutically for the treatment of vascular restenosis.
 CC Radio-labelled antisense MCP-1 compounds may be constructed using high
 CC energy alpha or beta emitting isotopes rather than the gamma
 CC emitters customarily used for diagnostic purposes. Antisense MCP-1
 CC compounds inactivate MCP-1 or inhibit production of MCP-1 so that
 CC monocytes are not attracted to the area of vascular injury and
 CC proliferation of vascular cells is inhibited.
 SQ Sequence 76 AA;

Query Match 94.7%; Score 89; DB 10; Length 76;
 Best Local Similarity 91.7%; Pred. No. 2,57e-02;
 Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 50 elcadpdkqkvwq 61
 ||||| |||||
 QY 1 EICADPSQKRWQ 12

RESULT 12
 ID R87675 standard; protein; 76 AA.
 AC R87675;
 DT 21-FEB-1996 (first entry)

DE (28-Asp) MCP-1.
 KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
 KW angioplasty.
 OS Homo sapiens.
 FT Key Location/Qualifiers
 FT modified_site 28
 FT disulfide_bond 11..36
 FT disulfide_bond 12..52
 PN WO9513295-A1.
 PD 18-MAY-1995.
 PF 07-NOV-1994; U12874.
 PR 12-NOV-1993; US-152301.
 PA (DAND) DANA FARBER CANCER INST INC.
 PI Rollins B, Zhang YJ;
 DR WPI: 95-215051/28.
 PT Human monocyte chemoattractant protein-1 (MCP-1) derivs. - are
 PT capable of inhibiting the monocyte chemoattractant activity of
 PT endogenous MCP-1 and can be used to treat restenosis
 PS Claim 3; Page 11; 22pp; English.
 CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
 CC that they inhibit the monocyte chemoattractant activity of endogenous
 CC MCP-1, provided that the derivative has not been modified by the
 CC substitution of 28-Tyr by leu and/or 30-Arg by Val. Preferred mutations
 CC are: (1) substitution of 28-Tyr by aspartate; (2) substitution of 24-Arg
 CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
 CC acids 2-8. The present sequence is a specifically claimed human MCP-1
 CC derivative based on the parent protein disclosed in Rollins, Molecular
 CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
 CC The peptides can be used to prevent restenosis, e.g. in patients
 CC undergoing coronary artery angioplasty.
 SQ Sequence 76 AA;

Query Match 94.7%; Score 89; DB 14; Length 76;
 Best Local Similarity 91.7%; Pred. No. 2,57e-02;
 Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 50 elcadpdkqkvwq 61
 ||||| |||||
 QY 1 EICADPSQKRWQ 12

RESULT 13
 ID W1131 standard; protein; 76 AA.
 AC W1131;
 DT 10-JUN-1997 (first entry)
 DE Mature human monocyte chemoattractant protein-1 (MCP-1).
 KW MCP-1; mature chemoattractant protein-1; cytokine; interleukin-8;
 KW IL-8; neutrophil activating peptide; labelling; imaging; targeting;
 KW radionuclide; infection; inflammation; neoplasm; atheromatous lesion;
 KW restenosis.
 OS Homo sapiens.
 FT Key Location/Qualifiers
 FT misc_difference 1 /note="X- any amino acid"
 FT FT
 PN US5605671-A.
 PD 25-FEB-1997.
 PF 05-OCT-1992; 956862.
 PR 05-OCT-1992; US-956863.
 PR 05-OCT-1992; US-956862.
 PR 29-APR-1994; US-235659.
 PA (MLCW) MALLINCKRODT MEDICAL INC.
 PI (UNMI) UNIV MICHIGAN.
 PA Kunkel SL, Lyle LR, Strieter RM;
 DR WPI: 97-153541/14.
 PT Radio:labelling neutrophil-activating peptide(s) - for imaging
 PT targeted delivery of radioactive agent
 PS Example 10; Column 19-20; 15pp; English.
 CC W1131 represents mature human monocyte chemoattractant protein-1
 CC (MCP-1). MCP-1 was radionuclide labelled and used in a method for
 CC imaging a target site in vivo in an animal. Labelled MCP-1 was allowed
 CC to accumulate at a target site (having MCP-1 receptors) in the animal
 CC and detected so as to image the target site. Any Cys-Cys or Cys-Xaa-Cys

CC chemokine carrying either iodine-123 or iodine-131 can be used in the
 CC method. Especially preferred is neutrophil activating peptide-2 (NAP-2)
 CC which recognises interleukin-8 receptors and is labelled with
 CC technetium-99m, indium-111, copper-62, rhenium-186 or rhenium-188.
 CC The method can be used for imaging a site of infection, inflammation,
 CC neoplasm, atherosclerotic lesion or restenosis.
 SQ Sequence 76 AA;

Query Match 94.7%; Score 89; DB 21; Length 76;
 Best Local Similarity 91.7%; Pred. No. 2.57e-02;
 Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 50 eicadpdkqkvwq 61
 |||||
 QY 1 EICADPSQKMWQ 12

RESULT 14
 ID R87677 standard; protein; 76 AA.
 AC R87677;
 DT 21-EB-1996 (first entry)
 DE (3-ALA) MCP-1.
 KM monocyte chemoattractant protein; MCP-1; mutant; restenosis;
 KN angioplasty.
 OS Homo sapiens.
 FH Key
 FT modified_site 3 Location/Qualifiers
 FT disulfide_bond 11..36 /note= "Asp in the native sequence is replaced by Ala"
 FT disulfide_bond 12..52
 PN WO9513295-A1.
 PD 18-MAY-1995.
 PF 07-NOV-1994; U12874.
 PR 12-NOV-1993; US-152301.
 PA (DAND) DANA FARBER CANCER INST INC.
 PI Rollins B, Zhang YJ;
 DR WPI: 95-215051/28.
 PI Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
 PI capable of inhibiting the monocyte chemo-attractant activity of
 PI endogenous MCP-1 and can be used to treat restenosis
 PS Claim 6; Page 11; 22pp; English.
 CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
 CC that they inhibit the monocyte chemoattractant activity of endogenous
 CC MCP-1, provided that the derivative has not been modified by the
 CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
 CC are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg
 CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
 CC acids 2-8. The present sequence is a specifically claimed human MCP-1
 CC derivative based on the parent protein disclosed in Rollins, Molecular
 CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
 CC The peptides can be used to prevent restenosis, e.g. in patients
 CC undergoing coronary artery angioplasty.
 SQ Sequence 76 AA;

Query Match 94.7%; Score 89; DB 14; Length 76;
 Best Local Similarity 91.7%; Pred. No. 2.57e-02;
 Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 50 eicadpdkqkvwq 61
 |||||
 QY 1 EICADPSQKMWQ 12

RESULT 15
 ID P90292 standard; peptide; 76 AA.
 AC P90292;
 DT 17-JAN-1990 (first entry)
 DE Peptide from human glioma cell line U-105MG.
 KM Glioma; leucocyte; chemotaxis; neoplasms.
 OS Human.
 FH Key
 FT modified_site 1 Location/Qualifiers
 FT /label= OTHER

/note= "pyroglutamic acid"

FN US7304234-A.
 PN 20-JUL-1989.
 PD 31-JAN-1989; 030423.
 PR 31-JAN-1989; US-304234.
 PA (USSH) US Dept. of Health and Human.
 PI Yoshimura T; Robinson E; Appella E; Leonard E.
 DR WPI: 89-263501/36.
 PT New peptide with specific chemotactic activity for monocytes - isolated
 PT from glioma or leucocyte cells, useful for treating infections and
 PT neoplasms.
 PS Disclosure: page 3; 46pp; English.
 CC Peptide is derived from glioma cell line U-105MG (ATCC CRL9332) or from
 CC leukocytes and has mol. wt. 8400. Used to treat infections and neoplasms.
 SQ Sequence 76 AA;

Query Match 94.7%; Score 89; DB 1; Length 76;
 Best Local Similarity 91.7%; Pred. No. 2.57e-02;
 Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 50 eicadpdkqkvwq 61
 |||||
 QY 1 EICADPSQKMWQ 12

RESULT 16
 ID R87680 standard; protein; 76 AA.
 AC R87680;
 DT 05-MAR-1996 (first entry)
 DE Monocyte chemotactic activating factor for use as wound remedy.
 KM monocyte chemotactic activating factor; MCAF; wound remedy.
 OS Homo sapiens.
 PN WO9507710-A1.
 PD 23-MAR-1995.
 PF 13-SEP-1994; J01512.
 PR 13-SEP-1993; JP-227385.
 PA (TORA) TORAY IND INC.
 PI Matsushima K; Naruto M;
 DR WPI: 95-11181/17.
 PT Wound treatment using monocyte chemotactic factor - has potent
 PT therapeutic effect on skin wounds and ulcers
 PS Disclosure: Page 12; 22pp; Japanese.
 CC The invention relates to a new remedy for curing wounds which, instead
 CC of comprising a growth factor, comprises a monocyte chemotactic
 CC activating factor (MCAF) or its variants or derivatives. The factor has
 CC potent effect on skin wounds and ulcers. The present sequence is human
 CC MCAF, the activity of which is exemplified as the new remedy.
 SQ Sequence 76 AA;

Query Match 94.7%; Score 89; DB 15; Length 76;
 Best Local Similarity 91.7%; Pred. No. 2.57e-02;
 Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 50 eicadpdkqkvwq 61
 |||||
 QY 1 EICADPSQKMWQ 12

RESULT 17
 ID R28660 standard; Protein; 76 AA.
 AC R28660;
 DT 24-MAR-1993 (first entry)
 DE MCF.
 KM Plasmid; monocyte chemotactic factor; MCF; translation;
 KM termination; terminator; initiation; ribosome binding site;
 KM RBS; promoter; tryptophan; repressor.
 OS Synthetic.
 PN WO9219737-A.
 PD 12-NOV-1992.
 PF 27-APR-1992; J00550.
 PR 09-MAY-1991; JP-135950.
 PA (DAIN) DAINIPPON PHARM CO LTD.
 PI Fukui T, Matsuo N, Yamada M, Yamagishi J;

DR WPI: 92-398864/48.
 DR N-PSDB: Q20745-46.
 PT Prodn. of polypeptide(s) having monocyte chemotactic activity -
 PT using expression plasmids with E. coli elements and specific
 PT E. coli strains
 PS Claim 1: Page 48 + Page 36; 56pp; English.
 CC An expression plasmid, pHM483, for producing MCF(76) consisting
 CC of 76 amino acids was constructed. The prod. can be used for e.g.
 CC treating bacterial infectious diseases.
 SQ Sequence 76 AA;

Query Match 94.7%; Score 89; DB 5; Length 76;
 Best Local Similarity 91.7%; Pred. No. 2.57e-02;
 Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 50 elcadpdkxkwq 61
 ||||| |||||
 QY 1 EICADPSQKMWQ 12

RESULT 18
 ID R86859 standard; Protein; 77 AA.
 AC R86859;
 DT 20-MAR-1996 (first entry)
 DE Mature MCP-1
 KW Antisense; monocyte chemotactic protein-1; MCP-1;
 KW "C-C" family; chemoattractant cytokine; chemokine; stimulation;
 KW monocyte; chemotaxis; vascular smooth muscle cell; macrophage;
 KW proliferation; restenosis; balloon angioplasty.
 OS Homo sapiens.
 PN M09519167-A1.
 PD 20-JUL-1995.
 PF 13-JAN-1995; U00605.
 PR 14-JAN-1994; US-182917.
 PA (MLCW) MALLINCKRODT MEDICAL INC.
 PI Lyle LR, Thomas-Miller B;
 DR WPI: 95-263703/34.
 DR N-PSDB: T03528.
 PT New anti:sense oligo:nucleotide(s) and peptide(s) for inhibiting
 PT restenosis - are directed against C-C family cytokine(s) such as
 PT monocyte chemotactic protein, opt. radio:labelled for therapy or
 PT imaging
 PS Disclosure: Page 5; 50pp; English.
 CC This sequence represents the mature form of monocyte chemotactic
 CC protein-1 (MCP-1). MCP-1 is a member of the "C-C" family of
 CC chemoattractant cytokines or chemokines. It is a potent stimulator
 CC of monocyte chemotaxis and has an extremely high degree of specificity
 CC for this cell type. MCP-1 is produced by injured vascular smooth muscle
 CC cells and attracts the monocytes and macrophages which infiltrate the
 CC area, releasing growth factors and resulting in proliferation of vascular
 CC smooth muscle and restenosis. Nucleic acid molecules which are antisense
 CC to the MCP-1 mRNA may be used to inhibit translation of MCP-1 and so may
 CC be useful for inhibiting vascular restenosis, partic. after balloon
 CC angioplasty or a related process. The molecule may be radiolabelled to
 CC increase its therapeutic effect or for imaging areas of potential
 CC restenosis.
 SQ Sequence 77 AA;

Query Match 94.7%; Score 89; DB 15; Length 77;
 Best Local Similarity 91.7%; Pred. No. 2.57e-02;
 Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 51 elcadpdkxkwq 62
 ||||| |||||
 QY 1 EICADPSQKMWQ 12

RESULT 19
 ID R73914 standard; protein; 99 AA.
 AC R73914;
 DT 05-DEC-1995 (first entry)
 DE Human monocyte chemoattractant factor hMCP-1.
 KW Human monocyte chemoattractant factor; hMCP-1; chemokine; vaccine;

KW meningitis related homologous antigenic sequence; MRHAS; RV-1;
 KW Immunassay; diagnosis; treatment; prophylactic; bacterial;
 KW viral.
 OS Homo sapiens.
 PN M09509232-A.
 PD 06-APR-1995.
 PF 28-SEP-1994; CA0516.
 PR 28-SEP-1993; US-127499.
 PA (SHAR/) SHARMA L. R.
 PA (VALS/) VAN ALSTYNE D.
 PI Sharma LR, Van Alstyne D;
 DR WPI: 95-147431/19.
 PT New peptide(s) and corresp. antibodies for the treatment of
 PT meningitis - the peptide(s) corresp. to homologous antigenic
 PT sites on bacterial and viral agents and on chemokine(s), used for
 PT detecting and preventing meningitis
 PS Claim 47: Fig 8/10; 98pp; English.
 CC R73914 is the chemokine Human monocyte chemoattractant factor hMCP-1.
 CC It contains the meningitis related antigenic sequences (MRHAS) claimed
 CC in R73895 and R73907, which are recognised by a monoclonal antibody
 CC from the hybridoma Rubella virus (RV)-1. The claimed MRHAS peptides
 CC may be used in immunoassays to diagnose the presence of bacterial
 CC and/or viral meningitis agents in a sample, or in prophylactic and
 CC therapeutic meningitis treatments. The peptides may also be used as
 CC vaccines against meningitis.
 CC NB: Identified by matching corresponding MRHAS peptides.
 SQ Sequence 99 AA;

Query Match 94.7%; Score 89; DB 14; Length 99;
 Best Local Similarity 91.7%; Pred. No. 2.57e-02;
 Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 73 elcadpdkxkwq 84
 ||||| |||||
 QY 1 EICADPSQKMWQ 12

RESULT 20
 ID R28663 standard; Protein; 99 AA.
 AC R28663;
 DT 24-MAR-1993 (first entry)
 DE MCF
 KW Plasmid; monocyte chemotactic factor; MCF; translation;
 KW termination; terminator; initiation; ribosome binding site;
 KW RBS; promoter; tryptophan; repressor.
 OS Synthetic.
 FH Key Location/Qualifiers
 FT peptide 1..23
 FT /label- sig_peptide
 FT /label- mat_protein
 FT protein 24..99
 PN M09219737-A.
 PD 12-NOV-1992.
 PR 27-APR-1992; J00550.
 PR 09-MAY-1991; JP-135850.
 PA (DAIN) DAINIPON PHARM CO LTD.
 PI Fukui T, Matsuo N, Yamada M, Yamagishi J;
 DR WPI: 92-398864/48.
 DR N-PSDB: Q30748.
 PT Prodn. of polypeptide(s) having monocyte chemotactic activity -
 PT using expression plasmids with E. coli elements and specific
 PT E. coli strains
 PS Disclosure: Page 43-44; 56pp; English.
 CC An expression plasmid, pHM0076 for producing MCF(76) consisting
 CC of 76 amino acids was constructed. DNA encoding MCF(76) was
 CC prepd. using a recombinant plasmid pMCF7.
 SQ Sequence 99 AA;

Query Match 94.7%; Score 89; DB 5; Length 99;
 Best Local Similarity 91.7%; Pred. No. 2.57e-02;
 Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 73 elcadpdkxkwq 84

QY 1 EICADPSQKMWQ 12

RESULT 21
ID R70800 standard; Protein; 99 AA.
AC R70800;
DE 28-AUG-1995 (first entry)
DE Chemottractant protein MCP-1.
KW MCP-1; Chemottractant; heparanase; heparin; heparan sulfate;
KW arthritis; restenosis; cancer; wound healing.
OS Homo sapiens.
PN M09504158-A.
PD 09-FEB-1995.
PF 26-JUL-1994; U08207.
PR 28-JUL-1993; US-099866.
PR 13-OCT-1993; US-136117.
PA (UPJO) UPJOHN CO.
PI Hoogwerf AJ, Ledbetter SR;
DR WPI: 95-082339/11.
DR N-PSDB: 085370.
PT Screening for cpds. with anti-heparanase activity - by detecting
PT inhibition of heparin or heparan sulphate degradation,
PT potentially useful for treating arthritis, restenosis, cancer.
PS Claim 13; Page 49; 60pp; English.
CC Purified heparanases, prepared under reducing conditions and
CC activated with transglutaminase, are given in R70786-804. Most
CC are prepared by reverse transcription of mRNA from activated human
CC leukocytes, then cloning of the cDNA into pVL1392 baculovirus
CC vector, and expression in sf9 cells in the presence of reduced
CC glutathione and dithiothreitol.
SQ Sequence 99 AA;

Query Match 94.7%; Score 89; DB 13; Length 99;
Best Local Similarity 91.7%; Pred. No. 2.57e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 73 eicadpkqkwyg 84
QY 1 EICADPSQKMWQ 12

RESULT 22
ID P95387 standard; protein; 99 AA.
AC P95387;
DE 25-JUL-1989 (first entry)
DE Human monocyte chemo-attractant peptide-1.
KW Human monocyte chemo-attractant peptide; inflammatory disease; neoplasms.
OS Homo sapiens.
FH Key Location/Qualifiers
FT protein 24..99
FT /product-MCP-1
PN US7330446-A.
PD 25-JUL-1989;
PF 30-MAR-1989; 330446.
PR 30-MAR-1989; US-330446.
PA (USSH) US Dept. Health and Human.
PI Yoshimura T, Robinson EA, Appella E, Leonard EJ;
DR WPI: 89-300683/41.
DR N-PSDB: N91337.
PT Human derived monocyte chemo-attractant peptide prods. - obtd. from human
PT glioma cell line U-105MG or peripheral blood mononuclear leukocytes.
PS Disclosure: fig 2; 66pp; English.
CC This is a human-derived monocyte chemo-attractant peptide (MCP-1) sequence
CC MCP-1 exhibits optimal chemotactic activity at a concn. of 1nM and has a
CC mol. mass of c.a. 8,400 D. MCP-1 can be used for treating infection eg
CC inflammatory disease, or for the control of neoplasms by accumulation of
CC monocytes at the site of the infection. The corresp. DNA is obtd. by
CC chemical synthesis, by screening reverse transcripts of mRNA from
CC purified blood leukocytes or cell cultures of eg U-373 MG or KMG-5.
SQ Sequence 99 AA;

Query Match 94.7%; Score 89; DB 2; Length 99;

Best Local Similarity 91.7%; Pred. No. 2.57e-02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 73 eicadpkqkwyg 84
QY 1 EICADPSQKMWQ 12

RESULT 23
ID W22675 standard; Protein; 71 AA.
AC W22675;
DE 19-MAR-1998 (first entry)
DE Drol3+ chemokine beta10 or monocyte chemotactic protein 4 variant.
KW Human; chemokine beta10; Ck beta10; treatment; antagonist;
KW solid tumour; infection; autoimmune disease; asthma; antibody;
KW fibrotic disease; psoriasis; neurodegenerative disease;
KW wound healing; haematopoiesis regulation; gene therapy;
KW chromosome identification; monocyte chemotactic protein 4;
KW leukemia; MCP-4; Drol3+ variant.
OS Homo sapiens.
PN W09731096-A1.
PD 28-AUG-1997.
PF 23-FEB-1996; U02598.
PR 23-FEB-1996; WO-U02598.
PA (HUMA-) HUMAN GENOME SCI INC.
PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
PI Parmelee D, White J;
DR WPI: 97-435153/40.
PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
PT protein 4 - useful to treat tumours, autoimmune disease, infection,
PT asthma and fibrosis
PS Example 11; Fig 5; 83pp; English.
CC The present sequence is human chemokine beta10 (Ck beta10) or
CC monocyte chemotactic protein 4 (MCP-4) Drol3+ variant, which can
CC be used to treat patients deficient in Ck beta10, while a Ck beta10
CC antagonist can be used to reduce excessive levels of Ck beta10. Ck
CC beta10 can be used to treat leukemia, solid tumours, chronic or
CC opportunistic infections, autoimmune diseases, asthma, fibrotic
CC diseases, psoriasis and neurodegenerative diseases. It also
CC promotes wound healing, regulates haematopoiesis and generates
CC antipodles. Labelled Ck beta10 can be used to identify its cognate
CC receptor, while cells expressing the receptor can be used to screen
CC compounds for (ant)agonist activity. The antagonist can be used to
CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
CC infectious diseases, allergies, prostaglandin dependent fever and
CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
CC syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can
CC be used to isolate genes encoding similar peptides, in gene therapy
CC and for chromosome identification.
SQ Sequence 71 AA;

Query Match 90.4%; Score 85; DB 27; Length 71;
Best Local Similarity 83.3%; Pred. No. 6.85e-02;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 45 eicadpkqkwyg 56
QY 1 EICADPSQKMWQ 12

RESULT 24
ID W22673 standard; Protein; 75 AA.
AC W22673;
DE 19-MAR-1998 (first entry)
DE Bac 3 chemokine beta10 or monocyte chemotactic protein 4 variant.
KW Human; chemokine beta10; Ck beta10; treatment; antagonist;
KW solid tumour; infection; autoimmune disease; asthma; antibody;
KW fibrotic disease; psoriasis; neurodegenerative disease;
KW wound healing; haematopoiesis regulation; gene therapy;
KW chromosome identification; monocyte chemotactic protein 4;
KW leukemia; MCP-4; Bac 3 variant.
OS Homo sapiens.
PN W09731096-A1.

PD 28-AUG-1997. U02598.
PF 23-FEB-1996; WO-U02598.
PA (HUMA-) HUMAN GENOME SCI INC.
PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
PI Parmelee D, White J;
DR WPI: 97-435153/40.
PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
protein 4 - useful to treat tumours, autoimmune disease, infection,
PT asthma and fibrosis
PS Example 11; Fig 5; 83pp; English.
CC The present sequence is human chemokine beta10 (CK beta10) or
CC monocyte chemotactic protein 4 (MCP-4) Bac 3 variant, which can be
CC used to treat patients deficient in CK beta10, while a CK beta10
CC antagonist can be used to reduce excessive levels of CK beta10. CK
CC beta10 can be used to treat leukaemia, solid tumours, chronic or
CC opportunistic infections, autoimmune diseases, asthma, fibrotic
CC diseases, psoriasis and neurodegenerative diseases. It also
CC promotes wound healing, regulates haematopoiesis and generates
CC antibodies. Labelled CK beta10 can be used to identify its cognate
CC receptor, while cells expressing the receptor can be used to screen
CC compounds for (anti)agonist activity. The antagonist can be used to
CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
CC infectious diseases, allergies, prostaglandin dependent fever and
CC bone marrow failure, sllcosis, sarcoidosis, hyper-eosinophilic
CC syndrome, lung inflammation and atherosclerosis. CK beta10 cDNA can
CC be used to isolate genes encoding similar peptides, in gene therapy
CC and for chromosome identification.
SQ Sequence 75 AA;

Query Match 90.4%; Score 85; DB 27; Length 75;
Best Local Similarity 83.3%; Pred. No. 6.85e-02;

Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 49 elcadvpkewq 60
|||||:||||
Oy 1 EICADPSQKRWQ 12

RESULT 25
ID W22672 standard; Protein: 77 AA.
AC W22672;
DE 19-MAR-1998 (first entry)
KW Human; chemokine beta10 or monocyte chemotactic protein 4 variant.
KW solid tumour; infection; autoimmune disease; asthma; antibody;
KW fibrotic disease; psoriasis; neurodegenerative disease;
KW wound healing; haematopoiesis regulation; gene therapy;
KW chromosome identification; monocyte chemotactic protein 4;
KW leukaemia; MCP-4; Bac 2 variant.
OS Homo sapiens.
PN WO9731098-A1.
PD 28-AUG-1997.
PF 23-FEB-1996; U02598.
PA (HUMA-) HUMAN GENOME SCI INC.
PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
PI Parmelee D, White J;
DR WPI: 97-435153/40.
PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
protein 4 - useful to treat tumours, autoimmune disease, infection,
PT asthma and fibrosis
PS Example 11; Fig 5; 83pp; English.
CC The present sequence is human chemokine beta10 (CK beta10) or
CC monocyte chemotactic protein 4 (MCP-4) Bac 2 variant, which can be
CC used to treat patients deficient in CK beta10, while a CK beta10
CC antagonist can be used to reduce excessive levels of CK beta10. CK
CC beta10 can be used to treat leukaemia, solid tumours, chronic or
CC opportunistic infections, autoimmune diseases, asthma, fibrotic
CC diseases, psoriasis and neurodegenerative diseases. It also
CC promotes wound healing, regulates haematopoiesis and generates
CC antibodies. Labelled CK beta10 can be used to identify its cognate
CC receptor, while cells expressing the receptor can be used to screen

CC compounds for (anti)agonist activity. The antagonist can be used to
CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
CC infectious diseases, allergies, prostaglandin dependent fever and
CC bone marrow failure, sllcosis, sarcoidosis, hyper-eosinophilic
CC syndrome, lung inflammation and atherosclerosis. CK beta10 cDNA can
CC be used to isolate genes encoding similar peptides, in gene therapy
CC and for chromosome identification.
SQ Sequence 77 AA;

Query Match 90.4%; Score 85; DB 27; Length 77;
Best Local Similarity 83.3%; Pred. No. 6.85e-02;

Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 51 elcadvpkewq 62
|||||:||||
Oy 1 EICADPSQKRWQ 12

RESULT 26
ID W22674 standard; Protein: 79 AA.
AC W22674;
DE 19-MAR-1998 (first entry)
KW Human; chemokine beta10 or monocyte chemotactic protein 4 variant.
KW solid tumour; infection; autoimmune disease; asthma; antibody;
KW fibrotic disease; psoriasis; neurodegenerative disease;
KW wound healing; haematopoiesis regulation; gene therapy;
KW chromosome identification; monocyte chemotactic protein 4;
KW leukaemia; MCP-4; Drol1/2 variant.
OS Homo sapiens.
PN WO9731098-A1.
PD 28-AUG-1997.
PF 23-FEB-1996; WO-U02598.
PA (HUMA-) HUMAN GENOME SCI INC.
PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
PI Parmelee D, White J;
DR WPI: 97-435153/40.
PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
protein 4 - useful to treat tumours, autoimmune disease, infection,
PT asthma and fibrosis
PS Example 11; Fig 5; 83pp; English.
CC The present sequence is human chemokine beta10 (CK beta10) or
CC monocyte chemotactic protein 4 (MCP-4) Drol1/2 variant, which can
CC be used to treat patients deficient in CK beta10, while a CK beta10
CC antagonist can be used to reduce excessive levels of CK beta10. CK
CC beta10 can be used to treat leukaemia, solid tumours, chronic or
CC opportunistic infections, autoimmune diseases, asthma, fibrotic
CC diseases, psoriasis and neurodegenerative diseases. It also
CC promotes wound healing, regulates haematopoiesis and generates
CC antibodies. Labelled CK beta10 can be used to identify its cognate
CC receptor, while cells expressing the receptor can be used to screen
CC compounds for (anti)agonist activity. The antagonist can be used to
CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
CC infectious diseases, allergies, prostaglandin dependent fever and
CC bone marrow failure, sllcosis, sarcoidosis, hyper-eosinophilic
CC syndrome, lung inflammation and atherosclerosis. CK beta10 cDNA can
CC be used to isolate genes encoding similar peptides, in gene therapy
CC and for chromosome identification.
SQ Sequence 79 AA;

Query Match 90.4%; Score 85; DB 27; Length 79;
Best Local Similarity 83.3%; Pred. No. 6.85e-02;

Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 53 elcadvpkewq 64
|||||:||||
Oy 1 EICADPSQKRWQ 12

RESULT 27
ID W22671 standard; Protein: 82 AA.
AC W22671;

DT 19-MAR-1998 (first entry)
 DE Bac 1 chemokine beta10 or monocyte chemotactic protein 4 variant.
 KW Human; chemokine beta10; Ck beta10; treatment; antagonist;
 KW solid tumour; infection; autoimmune disease; asthma; antibody;
 KW fibrotic disease; psoriasis; neurodegenerative disease;
 KW wound healing; haematopoiesis regulation; gene therapy;
 KW chromosome identification; monocyte chemotactic protein 4;
 KW leukaemia; MCP-4; Bac 1 variant.
 OS Homo sapiens.
 PN W09731096-A1.
 PD 28-AUG-1997.
 PF 23-FEB-1996; WO-02598.
 PR 23-FEB-1996; WO-02598.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
 PI Parmelee D, White J;
 DR WPI; 97-435153/40.
 PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 PT protein 4 - useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis
 PS Example 11; Fig 5; 83pp; English.
 CC The present sequence is human chemokine beta10 (Ck beta10) or
 CC monocyte chemotactic protein 4 (MCP-4) Bac 1 variant, which can be
 CC used to treat patients deficient in Ck beta10, while a Ck beta10
 CC antagonist can be used to reduce excessive levels of Ck beta10. Ck
 CC beta10 can be used to treat leukaemia, solid tumours, chronic or
 CC opportunistic infections, autoimmune diseases, asthma, fibrotic
 CC diseases, psoriasis and neurodegenerative diseases. It also
 CC promotes wound healing, regulates haematopoiesis and generates
 CC antibodies. Labelled Ck beta10 can be used to identify its cognate
 CC receptor, while cells expressing the receptor can be used to screen
 CC compounds for (ant)agonist activity. The antagonist can be used to
 CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
 CC infectious diseases, allergies, prostaglandin dependent fever and
 CC bone marrow failure, sllcosis, sarcoidosis, hyper-eosinophilic
 CC syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can
 CC be used to isolate genes encoding similar peptides, in gene therapy
 CC and for chromosome identification.
 SQ Sequence 82 AA;

Query Match 90.4%; Score 85; DB 27; Length 82;
 Best Local Similarity 83.3%; Pred. No. 6.85e-02;
 Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 56 elcadvpkewq 67
 |||||:||||
 QY 1 EICADPSQKRWQ 12

RESULT 28
 ID W17665 standard; peptide; 82 AA.
 AC W17665;
 DT 16-DEC-1997 (first entry)
 KW Stem cell mobilising chemokine CXbeta-10.
 KW Haematopoietic cell; parasitic infection; colony stimulating factor;
 KW hematopoietic; immune response; bacterial infection; transplant;
 KW wound healing; bone marrow; immunosuppression; regeneration;
 KW neoplastic disease; viral disease; gene therapy; cytotoxic drug.
 OS Synthetic.
 PN W09715594-A1.
 PD 01-MAY-1997.
 PF 23-OCT-1996; U16959.
 PR 24-OCT-1995; US-006051.
 PA (SMIK) SMITHKLINE BEECHAM CORP.
 PI Kreider BL, Li H, Pelus L, White JR;
 DR WPI; 97-258956/23.
 PT Ten new chemokine(s) able to mobilise stem cells - used where
 PT increased levels of haematopoietic cells are required, e.g. to
 PT increase resistance to infection
 PS Claim 7; Page 11-12; 24pp; English.
 CC The present sequence represents a chemokine, CXbeta-10, which is capable
 CC of mobilising stem cells. The chemokine can be used therapeutically to
 CC improve stem cell mobilisation, optionally together with a colony

CC stimulating factor or other haematoregulatory agent. It can be used
 CC wherever an increased level of haematopoietic cells is needed, e.g. to
 CC increase the immune response to chronic infection (particularly
 CC bacterial or parasitic), to promote wound healing, in (transplant)
 CC patients with reduced bone marrow function as a result of
 CC immunosuppressive treatment or disease, and to provide more rapid
 CC regeneration of bone marrow after treatment for neoplastic or viral
 CC diseases. The induced stem cells may be harvested for subsequent return
 CC to the patient, optionally after they have been genetically manipulated
 CC to deliver a selected gene product (gene therapy). The cells may be
 CC co-administered with a cytotoxic drug.
 SQ Sequence 82 AA;

Query Match 90.4%; Score 85; DB 24; Length 82;
 Best Local Similarity 83.3%; Pred. No. 6.85e-02;
 Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 56 elcadvpkewq 67
 |||||:||||
 QY 1 EICADPSQKRWQ 12

RESULT 29
 ID R93087 standard; Protein; 98 AA.
 AC R93087;
 DT 27-AUG-1996 (first entry)
 DE Human chemokine beta-10.
 KW Chemokine beta-10; chemokine beta-4; Ck beta-10; Ck beta-4;
 KW cytokine; leukaemia; tumour; cancer; autoimmune disease; psoriasis;
 KW asthma; allergy; wound healing; diagnosis; therapy.
 OS Homo sapiens.
 FH Key
 FH peptide Location/Qualifiers
 FT /label= Sig_peptide
 FT protein 25..98
 FT /label= Mat_protein
 PN W09605856-A1.
 PD 29-FEB-1996.
 PF 23-AUG-1994; U09484.
 PR 23-AUG-1994; WO-U09484.
 PR 08-SEP-1994; ZA-006936.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams MD, Li H;
 DR WPI; 96-151145/15.
 DR N-PSDB; T17050.
 PT New chemokine Ck(beta)-4 and -10 genes and polypeptide(s) - useful
 PT to treat, e.g. leukaemia, solid tumours and auto-immune diseases
 PS Claim 19; Fig 2; 53pp; English.
 CC A novel human chemokine, Ck beta-10 (R93087), was identified as
 CC the product of a cDNA clone (T17050) isolated from a 9-wk early
 CC human tissue cDNA library. The protein is structurally related to
 CC the chemokine family. Recombinant Ck beta-10 can be obtd. by
 CC incorporating the cDNA into a vector and expression of the protein
 CC in e.g. E. coli, COS or Sf9 cells. Ck beta-10 can be used to treat
 CC solid tumours, chronic infections, psoriasis, asthma and allergy,
 CC to regulate haematopoiesis, promote wound healing, and to inhibit
 CC angiogenesis. It can also be used to inhibit bone marrow stem cell
 CC colony formn. during chemotherapy.
 SQ Sequence 98 AA;

Query Match 90.4%; Score 85; DB 17; Length 98;
 Best Local Similarity 83.3%; Pred. No. 6.85e-02;
 Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 72 elcadvpkewq 83
 |||||:||||
 QY 1 EICADPSQKRWQ 12

RESULT 30
 ID W30191 standard; Protein; 98 AA.
 AC W30191;
 DT 21-MAY-1998 (first entry)

DE Monocyte chemotactic protein 5; MCP-5; human; macrophage;
 KM Monocyte chemotactic protein 5; MCP-5; human; macrophage;
 KW Chemokine; inhibitor; antiinflammatory; atherosclerosis;
 KM Crohn's disease; arthritis; angiogenesis; tumour; metastasis;
 KW therapy; diagnosis; medical imaging.
 OS Homo sapiens.
 FH Key Location/Qualifiers
 FI Peptide 1..23
 FI /label= Sig_peptide
 FI Protein 24..98
 FI /label= Mat.protein
 FI /note= "(Claim 4)"
 PN MO9735982-A2.
 PD 02-OCT-1997.
 PE 26-MAR-1997; U04898.
 PR 27-MAR-1996; U5-622851.
 PA (ICOS-) ICOS CORP.
 PI Godiska R, Gray PM;
 DR WPI: 97-489645/45.
 DR N-PDB: T90880.
 FT Polynucleotide encoding monocyte chemotactic protein-5 - useful in
 PT treatment of e.g. inflammation, atherosclerosis, angiogenesis and
 PT tumours
 PS Claim 1: Page 36-37; 47pp; English.
 CC This polypeptide comprises human macrophage-derived
 CC monocyte chemotactic protein-5 (MCP-5), a novel C-C chemokine.
 CC Its amino acid sequence was deduced from a cDNA clone (see
 CC T90880 and T90883) isolated from a human macrophage cDNA
 CC library. A claimed method for producing MCP-5 comprises
 CC culturing a host cell that is stably transformed or transfected
 CC with MCP-5 polynucleotide. Also claimed is a hybridoma that
 CC produces a monoclonal antibody (MAb) that is specifically
 CC reactive with the mature MCP-5. MCP-5 (or its analogues and
 CC fragments) is used to enhance the immune response in cases of
 CC wounds or infections, while its inhibitors (e.g. the MAb) are
 CC useful as anti-inflammatory in cases of e.g. arthritis and
 CC Crohn's disease, also for treatment of atherosclerosis,
 CC angiogenesis and tumour growth (or metastasis). The MCP-5
 CC inhibitors can possibly also be used to reduce the damaging effects
 CC of chemo- and radio-therapy on myeloid progenitor cells, and to
 CC inhibit replication of HIV. MCP-5 can also be used to identify
 CC its cognate receptor, while MCP-5 peptides (or the analogues or
 CC receptors) are used to modulate MCP-5 activity and to identify
 CC MCP-5 agonists and antagonists.
 SQ Sequence 98 AA;

Query Match 90.4%; Score 85; DB 28; Length 98;

Best Local Similarity 83.3%; Pred. No. 6.85e-02;

Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 72 eicadpkekavq 83

0y 1 EICADPSQKRWQ 12

Search completed: Thu Apr 1 07:38:42 1999
 Job time : 21 secs.

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WORLD (TM)

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MPsrch_pp protein - protein database search, using Smith-Waterman algorithm
Run on: Thu Apr 1 07:37:45 1999; MasPar time 3.31 Seconds
Tabular output not generated. 135.966 Million cell updates/sec

Title: >US-08-927-939-11
Description: (1-12) from US08927939.pep
Perfect Score: 94
Sequence: 1 EICADPSQKWQ 12

Scoring table:
Gap 15
PAM 150

Searched: 116738 segs, 37463448 residues

Post-processing: Minimum Match 0%
Listing first 100 summaries

Database: p1r58
1:p1r1 2:p1r2 3:p1r3 4:p1r4

Statistics: Mean 24.451; Variance 36.011; scale 0.679

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match %	Length	ID	Description	Pred. No.
1	92	97.9	109	2	A54678	1.73e-07
2	90	95.7	120	2	A48147	4.80e-07
3	89	94.7	99	2	A60299	7.98e-07
4	88	93.6	99	2	JC2136	1.32e-06
5	86	91.5	99	2	JC2417	3.63e-06
6	84	89.4	99	2	A39296	9.85e-06
7	84	89.4	99	2	JC2336	9.85e-06
8	83	88.3	125	2	I46857	1.62e-05
9	78	83.0	97	2	JC4912	1.87e-04
10	77	81.9	50	2	C60407	3.04e-04
11	77	81.9	92	1	A31767	3.04e-04
12	77	81.9	92	2	A30574	3.04e-04
13	77	81.9	93	2	B35673	3.04e-04
14	76	80.9	95	2	JN0841	4.91e-04
15	76	80.9	96	2	JC2478	4.91e-04
16	76	80.9	96	2	I48099	4.91e-04
17	76	80.9	101	2	S42496	4.91e-04
18	76	80.9	101	2	I46897	4.91e-04
19	76	80.9	103	2	A53096	4.91e-04
20	76	80.9	103	2	A44253	4.91e-04
21	76	80.9	148	2	A07723	4.91e-04
22	75	79.8	92	2	I52322	7.91e-03
23	74	78.7	91	1	A46539	1.27e-03

24	74	78.7	92	2	I46730	1.27e-03	immune activation gen
25	74	78.7	99	2	JC5295	1.27e-03	monocyte chemotactic
26	73	77.7	101	2	I46871	2.04e-03	interleukin-8 - rabd1
27	72	76.6	148	2	A30209	3.26e-03	PDGF-inducible JE g1y
28	70	74.5	120	2	JE0177	8.28e-03	lymphocyte and monocy
29	68	72.3	91	1	A28815	2.08e-02	monocyte chemotract
30	68	72.3	92	2	A32393	2.08e-02	macrophage inflamma
31	68	72.3	114	1	ETMSL	2.08e-02	lymphocactin precuso
32	67	71.3	89	2	A53497	3.27e-02	pre-B-cell growth-sti
33	67	71.3	89	2	I53416	3.27e-02	interleukin-8 homolo
34	67	71.3	92	2	C30552	3.27e-02	macrophage inflamma
35	67	71.3	93	2	I81182	3.27e-02	cytokine - mouse
36	67	71.3	93	2	G01540	3.27e-02	cytokine SDF-1-beta
37	67	71.3	97	2	A46093	3.27e-02	monocytic cytokine FI
38	67	71.3	99	2	A37034	3.27e-02	interleukin-8 precus
39	67	71.3	101	2	I48148	3.27e-02	Neutrophil attractant
40	65	69.1	103	2	I50417	8.04e-02	RSV-induced protein -
41	65	69.1	103	2	A26736	8.04e-02	transformation-induce
42	64	68.1	116	2	I48555	1.26e-01	gene C10 protein - mo
43	59	62.8	114	1	ETHUL	1.10e+00	lymphocactin precuso
44	56	59.6	760	2	S55520	3.85e+00	Chitin synthetase I -
45	55	58.5	85	2	C35387	5.79e+00	regulatory protein ko
46	55	58.5	117	2	S57175	5.79e+00	hypothetical protein
47	54	57.4	108	2	G70567	8.68e+00	hypothetical protein
48	54	57.4	108	2	A60340	8.68e+00	hypothetical protein
49	54	57.4	187	2	C71317	8.68e+00	hypothetical 41.7K pr
50	54	57.4	379	2	IC5303	8.68e+00	beta-fructofuranosida
51	54	57.4	532	1	IEBY	8.68e+00	beta-fructofuranosida
52	54	57.4	532	2	S27373	8.68e+00	beta-galactosidase (E
53	54	57.4	828	2	S52393	8.68e+00	beta-galactosidase (E
54	53	56.4	92	2	S24236	1.28e+01	TCA3 protein - mouse
55	53	56.4	341	2	S74759	1.28e+01	hypothetical protein
56	53	56.4	832	2	S41889	1.29e+01	beta-galactosidase (E
57	53	56.4	905	2	A27410	1.29e+01	plasma cell membrane
58	53	56.4	1053	2	D71466	1.29e+01	probable ribonucleosi
59	52	55.3	329	2	S72910	1.92e+01	delta-aminolevulinic
60	52	55.3	332	2	H69494	1.92e+01	pyruvate formate-lyas
61	52	55.3	460	2	E64019	1.92e+01	hypothetical protein
62	52	55.3	731	2	A55229	1.92e+01	ornithine decarboxyla
63	52	55.3	2179	1	GNNYH4	1.92e+01	genome polyprotein -1
64	51	54.3	491	2	S48827	2.84e+01	1-aminocyclopropane-1
65	51	54.3	594	1	A44073	2.84e+01	C1K1 protein - yeast
66	51	54.3	6805	2	S20901	2.84e+01	titin - rabbit (fragm
67	51	54.3	26926	1	I38344	2.84e+01	titin, cardiac muscle
68	50	53.2	145	2	S76877	4.16e+01	hypothetical protein
69	50	53.2	350	2	S51406	4.16e+01	hypothetical protein
70	50	53.2	385	2	S54995	4.16e+01	reverse transcriptase
71	50	53.2	385	2	S54988	4.16e+01	reverse transcriptase
72	50	53.2	385	2	S54991	4.16e+01	reverse transcriptase
73	50	53.2	385	2	S54990	4.16e+01	reverse transcriptase
74	50	53.2	385	2	S54992	4.16e+01	reverse transcriptase
75	50	53.2	385	2	S54987	4.16e+01	reverse transcriptase
76	50	53.2	385	2	S54997	4.16e+01	reverse transcriptase
77	50	53.2	397	2	S67061	4.16e+01	hypothetical protein
78	50	53.2	529	2	C70545	4.16e+01	hypothetical protein
79	50	53.2	731	2	S16595	4.16e+01	gene CARS12 protein
80	50	53.2	841	2	A43254	4.16e+01	protein-tyrosine-phos
81	50	53.2	896	2	S57723	4.16e+01	lirp protein - human
82	50	53.2	1021	2	S09111	4.16e+01	hypothetical protein
83	50	53.2	1233	1	COB8E10	4.16e+01	BOF1 protein - human
84	50	53.2	1433	1	GANVBM	4.16e+01	M polypeptide precus
85	49	52.1	152	2	S46272	6.08e+01	anther-specific prote
86	49	52.1	161	2	I12446	6.08e+01	probable resistance g
87	49	52.1	192	2	E71437	6.08e+01	cell surface glycopro
88	49	52.1	281	1	A47629	6.08e+01	lencyli-tRNA synthet
89	49	52.1	289	2	D70452	6.08e+01	iron(III) ditrate t
90	49	52.1	333	2	D68805	6.08e+01	DEND box protein - si
91	49	52.1	582	2	S33814	6.08e+01	hypothetical protein
92	49	52.1	590	2	E71408	6.08e+01	hypothetical protein
93	49	52.1	630	1	S41314	6.08e+01	env polyprotein precu
94	49	52.1	729	1	VCLJRX	6.08e+01	brain-specific serine
95	49	52.1	761	2	JC5759	6.08e+01	carbon-monoxide dehyd
96	49	52.1	809	2	C56279	6.08e+01	

97 49 52.1 843 1 HA4001 env polypeptide precu 6.08e+01
 98 49 52.1 925 2 A39216 plasma cell membrane 6.08e+01
 99 49 52.1 1032 2 A57514 RNA heliase HEL117 - 6.08e+01
 100 49 52.1 1827 1 U0HU sucrose alpha-glucosi 6.08e+01

ALIGNMENTS

RESULT 1

ENTRY 1 A54678 #type complete
 TITLE monocytic chemotactic protein 3 precursor - human
 ALTERNATE_NAMES monocytic chemotactant protein MCP-3
 ORGANISM Homo sapiens #common_name man
 DATE 28-Oct-1994 #sequence_revision 28-Oct-1994 #text_change

ACCESSIONS A54678 JCI478; S32222
 REFERENCE A54678 JCI478
 #authors Opdenakker, G.; Fiten, P.; Nys, G.; Froyen, G.; Van Roy, N.;
 Speleman, F.; Laureys, G.; Van Damme, J.

#journal Genomics (1994) 21:403-408
 #title The human MCP-3 gene (SCYA7): cloning, sequence analysis, and
 assignment to the C-C chemokine gene cluster on chromosome
 17q11.2-q12.

#accession A54678
 #molecule_type DNA
 #residues 1-109 #label OPD
 REFERENCE JCI478
 #authors Opdenakker, G.; Froyen, G.; Fiten, P.; Proost, P.; Van Damme,

#journal Biochem. Biophys. Res. Commun. (1993) 191:535-542
 #title Human monocyte chemotactic protein-3 (MCP-3): Molecular
 cloning of the cDNA and comparison with other chemokines.

#accession JCI478
 #molecule_type mRNA
 #residues 1-109 #label OP2
 REFERENCE S32222
 #authors Minty, A.; Chalon, P.; Guillemot, J.C.; Kaghad, M.; Llaunay,

#journal P.; Magazian, M.; Miloux, B.; Miltly, C.; Ramond, P.; Vita,
 N.; Dupker, J.; Shire, D.; Ferrara, P.; Caput, D.
 #submission Submitted to the EMBL Data Library, March 1993
 #description Molecular cloning of MCP-3: a human monocyte-derived monocyte
 chemotactant protein.

#accession S32222
 #molecule_type mRNA
 #residues 1-109 #label MIN
 COMMENT This protein induces proteinase secretion and chemotaxis by
 macrophages and monocytes.

GENETICS GDB:SCYA7; SCYA6; MCP-3
 #cross-references GDB:138473; OMIM:158106
 #map_position 17q11-17q12
 #introns 36/1; 75/2
 CLASSIFICATION #superfamily macrophage inflammatory protein
 FEATURE cytokine; glycoprotein; inflammation
 XREFS CYTOSOL
 1-33 #domain signal sequence #status predicted #label SIG
 34-109 #product monocyte chemotactic protein 3 #status
 #binding-site carbohydrate (asn) (covalent) #status
 predicted

SUMMARY #length 109 #molecular-weight 12356 #checksum 1535

Query Match 97.9%; Score 92; DB 2; Length 109;
 Best Local Similarity 91.7%; Pred. No. 1.73e-07;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 83 EICADPTOKWQ 94
 1 EICADPSOKWQ 12

RESULT 2

ENTRY 2 I48147 #type complete
 TITLE monocytic chemotactant protein-1 - guinea pig
 ORGANISM #formal_name Cavia porcellus #common_name guinea pig
 DATE 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change

ACCESSIONS I48147
 REFERENCE I48147
 #authors Yoshimura, T.

#journal J. Immunol. (1993) 150:5025-5032
 #title cDNA cloning of guinea pig monocyte chemotactant protein-1
 and expression of the recombinant protein.

#cross-references MIMD:93267104
 #accession I48147
 #status Preliminary; translated from GB/EMBL/DBJ

#molecule_type mRNA
 #residues 1-120 #label RES
 #cross-references GB:L04985; NID:g349820; PID:g349821

GENETICS MCP-1
 CLASSIFICATION #superfamily macrophage inflammatory protein
 SUMMARY #length 120 #molecular-weight 13741 #checksum 9252

Query Match 95.7%; Score 90; DB 2; Length 120;
 Best Local Similarity 83.3%; Pred. No. 4.80e-07;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 71 EVCADPTOKWQ 82
 1 EICADPSOKWQ 12

RESULT 3

ENTRY A60299 #type complete
 TITLE monocytic chemotactant protein 1 precursor - human
 ALTERNATE_NAMES GDCF-1; glioma-derived monocyte chemotactic factor 1; MCAF;
 MCP-1; monocyte chemotactic factor 1; monocyte secretory

protein; tumor-derived chemotactic factor
 CONTAINS glioma-derived chemotactic factor 2 (GDCF-2)
 ORGANISM #formal_name Homo sapiens #common_name man
 DATE 20-Feb-1993 #sequence_revision 20-Feb-1993 #text_change

ACCESSIONS A35476; A33476; S03339; I51841; A60299; A32300; A32356;
 A34561; I57486; JCI1096
 REFERENCE A35476
 #authors Shyy, Y.J.; Li, Y.S.; Kolattukudy, P.E.

#journal Biochem. Biophys. Res. Commun. (1990) 169:346-351
 #title Structure of human monocyte chemotactic protein gene and its
 regulation by TPA.

#cross-references MIMD:90290466
 #accession A35476
 #molecule_type DNA
 #residues 1-99 #label SHY

REFERENCE A33476
 #cross-references GB:M37719; NID:g187447; PID:g487124

#authors Rollins, B.J.; Stier, P.; Ernst, T.; Wong, G.G.
 #journal Mol. Cell. Biol. (1989) 9:4687-4695
 #title The human homolog of the JE gene encodes a monocyte secretory
 protein.

#cross-references MIMD:90097880
 #accession A33476
 #molecule_type mRNA

#residues 1-99 #label ROL
 #cross-references GB:M30816; GB:M31625; GB:M31626; NID:g188701;
 PID:g386961

REFERENCE S03339
 #authors Yoshimura, T.; Yuhki, N.; Moore, S.K.; Appella, E.; Lerman,

#journal M.I.; Leonard, E.J.
 #title PERS Lett. (1989) 244:487-493
 Human monocyte chemotactant protein-1 (MCP-1). Full-length
 cDNA cloning, expression in mitogen-stimulated blood
 mononuclear leukocytes, and sequence similarity to mouse
 competence gene JE.

```

#cross-references M01D:89153605
#accession 503339
#status not compared with conceptual translation
#molecule_type mRNA
#residues 1-99 ##label YOS
#cross-references GB:X14768; NID:934513; PID:934514
#experimental source glioma cell line U-105MG
REFERENCE
#authors Yoshimura, T.; Leonard, E.J.
#journal Adv. Exp. Med. Biol. (1991) 305:47-56
#title Human monocyte chemoattractant protein-1 (MCP-1).
#cross-references M01D:92095166
#accession I51841
#status Preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-99 ##label Y02
#cross-references GB:S71513; NID:9240867; PID:9240868
REFERENCE
#authors Bottazzi, B.; Colotta, F.; Sica, A.; Nobile, N.; Mantovani, A.
#journal Int. J. Cancer (1990) 45:795-797
#title A chemoattractant expressed in human sarcoma cells (tumor-derived chemotactic factor, TDCF) is identical to monocyte chemoattractant protein-1/monocyte chemotactic and activating factor (MCP-1/MCAF).
#accession A60299
#status not compared with conceptual translation
#molecule_type mRNA
#residues 1-99 ##label BOT
REFERENCE
#authors Furutani, Y.; Nomura, H.; Notake, M.; Oyama, Y.; Fukui, T.; Yamada, M.; Larsen, C.G.; Oppenheim, J.J.; Matsushima, K.
#journal Biochem. Biophys. Res. Commun. (1989) 159:249-255
#title Cloning and sequencing of the cDNA for human monocyte chemotactic and activating factor (MCAF).
#cross-references M01D:89165862
#accession A32300
#status not compared with conceptual translation
#molecule_type mRNA
#residues 1-99 ##label FUR
#cross-references GB:M24545; NID:9187434; PID:9307163
REFERENCE
#authors Robinson, E.A.; Yoshimura, T.; Leonard, E.J.; Tanaka, S.; Griffin, P.R.; Shabanowitz, J.; Hunt, D.F.; Appella, E.
#journal Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1850-1854
#title Complete amino acid sequence of a human monocyte chemoattractant, a putative mediator of cellular immune reactions.
#cross-references M01D:89184525
#accession A32396
#molecule_type protein
#residues 'X',25-99 ##label ROB
REFERENCE
#authors De Cock, B.; Conings, R.; Lenaerts, J.P.; Billiau, A.; Van Damme, J.
#journal Biochem. Biophys. Res. Commun. (1990) 167:904-909
#title Identification of the monocyte chemotactic protein from human osteosarcoma cells and monocytes: detection of a novel N-terminally processed form.
#cross-references M01D:90211336
#accession A34561
#molecule_type protein
#residues 29-93, 'XX',36-52;82-92 ##label DEC
REFERENCE
#authors Li, Y.S.; Shyy, Y.J.; Wright, J.C.; Valente, A.J.; Cornhill, J.F.; Kolattukudy, P.E.
#journal Mol. Cell. Biochem. (1993) 126:61-68
#title The expression of monocyte chemotactic protein (MCP-1) in human vascular endothelium in vitro and in vivo.
#cross-references M01D:94150478
#accession I57488
#status translated from GB/EMBL/DBJ
#molecule_type mRNA

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```

#residues 1-99 ##label LIY
#cross-references GB:S69738; NID:9545464; PID:9545465
REFERENCE
#authors Ye, Q.N.; Su, G.F.; Yuan, Y.; Huang, C.F.
#journal Chinese J. Microbiol. Immunol. (1994) 14:29-32
#title The PCR, cloning and sequencing of human monocyte chemoattractant protein-1 (MCP-1) gene.
#accession JCI1096
#molecule_type mRNA
#residues 24-28, 'Q',30-99 ##label YEQ
GENETICS
#gene GDB:SCYA2
#cross-references GDB:125279; OMIM:158105
#map_position 17q11.2-17q12
CLASSIFICATION
#superfamily macrophage inflammatory protein
#keywords cytokine; glycoprotein; inflammation; pyroglyutamic acid
FEATURE
1-23
24-99
#domain signal sequence #status predicted #label SIG\
#product monocyte chemoattractant protein 1 #status
29-99
#product monocyte chemoattractant protein 1, short form
#status experimental #label MAT\
24
#modified site pyrrolidone carboxylic acid (Gln) (in mature form) #status experimental\
37
#binding-site carbohydrate (Asn) (covalent) #status predicted
SUMMARY
#length 99 #molecular-weight 11025 #checksum 7984
Query Match
Best Local Similarity 91.7%; Score 89; DB 2; Length 99;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db 73 EICADPKQRWQ 84
QY 1 EICADPSKRWQ 12
RESULT 4
ENTRY JC2136 #type complete
TITLE monocyte chemoattractant protein-1 precursor - pig
ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
DATE 30-Sep-1993 #sequence_revision 20-Aug-1994 #text_change 08-Sep-1997
ACCESSIONS JC2136; 557498
REFERENCE
#authors Hosang, K.; Knoke, I.; Klaudiny, J.; Wempe, F.; Wuttke, W.; Scheit, K.H.
#journal Biochem. Biophys. Res. Commun. (1994) 199:962-968
#title Porcine luteal cells express monocyte chemoattractant protein-1 (MCP-1): Analysis by polymerase chain reaction and cDNA cloning.
#accession JC2136
#molecule_type mRNA
#residues 1-99 ##label HOS
REFERENCE
#authors Zach, O.
#title submitted to the EMBL Data Library, July 1994
#accession S57498
#status preliminary
#molecule_type mRNA
#residues 1-99 ##label ZAC
#cross-references EMBL:X79416; NID:9872312; PID:9872313
CLASSIFICATION
#superfamily macrophage inflammatory protein
#keywords glycoprotein
FEATURE
1-23
24-99
#domain signal sequence #status predicted #label SIG\
#product monocyte chemoattractant protein-1 #status
94
#binding-site carbohydrate (Asn) (covalent) #status predicted
SUMMARY
#length 99 #molecular-weight 10976 #checksum 9768
Query Match
93.6%; Score 88; DB 2; Length 99;

```

Best Local Similarity 83.3%; Pred. No. 1,32e-06;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 73 EICADPKQKWKVQ 84
|||||
OY 1 EICADPSQKWKVQ 12

RESULT 5
ENTRY JC2417 #type complete
TITLE monocytic chemottractant protein-2 - pig
ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
DATE 24-Feb-1995 #sequence_revision 24-Feb-1995 #text_change 03-May-1996

ACCESSIONS JC2417
REFERENCE JC2417
#authors Hosang, K.; Knoke, I.; Klaudiny, J.; Wempe, F.; Wuttke, W.; Scheit, K.H.
#journal Biochem. Biophys. Res. Commun. (1994) 205:148-153
#title Porcine luteal cells express monocytic chemottractant protein-2 (MCP-2): Analysis by cDNA cloning and northern analysis.

#accession JC2417
#molecule_type mRNA
#residues 1-99 #label HOS
#experimental_source corpus luteum
CLASSIFICATION #superfamily macrophage inflammatory protein
FEATURE 1-23
24-99 #domain signal sequence #status predicted #label SIG\

SUMMARY #product monocytic chemottractant protein-2 #status predicted #label MAT
#length 99 #molecular_weight 10903 #checksum 7556

Query Match 91.5%; Score 86; DB 2; Length 99;
Best Local Similarity 83.3%; Pred. No. 3.63e-06;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 73 EVCADPOOKWKVQ 84
|||||
OY 1 EICADPSQKWKVQ 12

RESULT 6
ENTRY A39296 #type complete
TITLE monocytic chemottractant protein 1 precursor - bovine
ALTERNATE_NAMES #formal_name Bos primigenius taurus #common_name cattle
ORGANISM #formal_name Bos primigenius taurus #common_name cattle
DATE 03-Aug-1992 #sequence_revision 03-Aug-1992 #text_change 31-Oct-1997

ACCESSIONS A39296
REFERENCE A39296
#authors Wempe, F.; Henschen, A.; Scheit, K.H.
#journal DNA Cell Biol. (1991) 10:671-679
#title Gene expression and cDNA cloning identified a major basic protein constituent of bovine seminal plasma as bovine monocytic-chemottractant protein-1 (MCP-1).

#cross-references MUID:92096117
#accession A39296
#molecule_type mRNA
#residues 1-99 #label WEM
#cross-references GB:M84602; GB:M85264; NID:G163394; PID:G163395
#accession B39296
#molecule_type protein
#residues 50-68, 'X', '70-74', 'X', '76 #label WE2
#experimental_source seminal vesicle
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS glycoproteins
FEATURE 1-23
24-99 #domain signal sequence #status predicted #label SIG\
#product monocytic chemottractant protein 1 #status predicted #label MAT\
#binding_site carbohydrate (Asn) (covalent) #status predicted

SUMMARY #length 99 #molecular_weight 11114 #checksum 9401

Query Match 89.4%; Score 84; DB 2; Length 99;
Best Local Similarity 83.3%; Pred. No. 9.85e-06;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 73 EICADPKQKWKVQ 84
|||||
OY 1 EICADPSQKWKVQ 12

RESULT 7
ENTRY JC2336 #type complete
TITLE monocytic chemottractant protein-1 - bovine
ORGANISM #formal_name Bos primigenius indicus #common_name zebu cattle
DATE 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 03-May-1996

ACCESSIONS JC2336
REFERENCE JC2336
#authors Wempe, F.; Kuhlmann, J.K.; Scheit, K.H.
#journal Biochem. Biophys. Res. Commun. (1994) 202:1272-1279
#title Characterization of the bovine monocytic chemottractant protein-1 gene.

#accession JC2336
#molecule_type protein
#residues 1-99 #label WEM

GENETICS MCP-1
#gene 26/1; 65/2
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 99 #molecular_weight 11114 #checksum 9401

Query Match 89.4%; Score 84; DB 2; Length 99;
Best Local Similarity 83.3%; Pred. No. 9.85e-06;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 73 EICADPKQKWKVQ 84
|||||
OY 1 EICADPSQKWKVQ 12

RESULT 8
ENTRY I46857 #type complete
TITLE monocytic chemottractant protein-1 - rabbit
ORGANISM #formal_name Oryctolagus cuniculus #common_name domestic rabbit
DATE 14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change 09-May-1997

ACCESSIONS I46857
REFERENCE I46857
#authors Yoshimura, T.; Yuhki, N.
#journal J. Immunol. (1991) 146:3483-3488
#title Neutrophil attractant/activation protein-1 and monocytic chemottractant protein-1 in rabbit: cDNA cloning and their expression in spleen cells.

#cross-references MUID:91225489
#accession I46857
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-125 #label YOS
#cross-references GB:M57440; NID:G165469; PID:G165470
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 125 #molecular_weight 13776 #checksum 4498

Query Match 88.3%; Score 83; DB 2; Length 125;
Best Local Similarity 90.9%; Pred. No. 1.62e-05;
Matches 10; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 74 ICADPKQKWKVQ 84
|||||
OY 2 ICADPSQKWKVQ 12

RESULT 9
ENTRY JC4912 #type complete
TITLE eotaxin - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 01-Nov-1996 #sequence_revision 01-Nov-1996 #text_change
08-Sep-1997
ACCESSIONS JC4912
REFERENCE JC4912
#authors Bartels, J.; Schlutener, C.; Richter, E.; Noso, N.; Kulke, R.;
Christophers, E.; Schroeder, J.M.
#journal Biochem. Biophys. Res. Commun. (1996) 225:1045-1051
#title Human dermal fibroblasts express eotaxin: Molecular cloning,
mRNA expression, and identification of eotaxin sequence
variants.
#accession JC4912
#status preliminary
#molecule_type mRNA
#residues 1-97 #label BAR
#cross-references EMBL:275668; NID:g1531982; PID:e251275; PID:g1531983
#experimental_source dermal fibroblast
COMMENT This protein has eosinophil specific chemotactic activity.
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS fibroblast
FEATURE 1-18
1-97 #domain signal sequence #status predicted #label SIG\
SUMMARY #product eotaxin #status predicted #label MAT
#length 97 #molecular_weight 10790 #checksum 448
Query Match 83.0%; Score 78; DB 2; Length 97;
Best Local Similarity 66.7%; Pred. No. 1.87e-04;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
Db 71 DICADPKRWQ 82
Qy 1 EICADPSQKWQ 12

RESULT 10
ENTRY C60407 #type fragment
TITLE monocyte adherence-induced protein 5 beta - human (fragment)
ORGANISM #formal_name Homo sapiens #common_name man
DATE 06-Nov-1992 #sequence_revision 06-Nov-1992 #text_change
03-May-1996
ACCESSIONS C60407
REFERENCE A60407
#authors Sporn, S.A.; Eierman, D.F.; Johnson, C.E.; Morris, J.;
Martin, G.; Ladner, M.; Haskill, S.
#journal J. Immunol. (1990) 144:4434-4441
#title Monocyte adherence results in selective induction of novel
genes sharing homology with mediators of inflammation and
tissue repair.
#cross-references MUID:90257367
#accession C60407
#status preliminary; not compared with conceptual translation
#molecule_type mRNA
#residues 1-50 #label SPO
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 50 #checksum 9927
Query Match 81.9%; Score 77; DB 2; Length 50;
Best Local Similarity 66.7%; Pred. No. 3.04e-04;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;
Db 30 QVCADPSESQWQ 41
Qy 1 EICADPSQKWQ 12

RESULT 11
ENTRY A31767 #type complete
TITLE macrophage inflammatory protein 1-beta precursor - human
ALTERNATE_NAMES cytokine HC1; G-26 protein; HA00 homolog; lymphocyte
activation gene 1 protein (LAG-1); MIP-1beta; PAT744; SC1A2

protein (misidentification); SIS gamma homolog; T-cell
activation protein 2 (Act-2); T-cell activation protein
gamma
ORGANISM #formal_name Homo sapiens #common_name man
DATE 07-Jun-1990 #sequence_revision 29-May-1998 #text_change
29-May-1998
ACCESSIONS JH0319; A40978; A31767; A37411; B30574; B45817; D30552
REFERENCE JH0319
#authors Balxeras, E.; Roman-Roman, S.; Jitsukawa, S.; Genevree, C.;
Mechiche, S.; Viegas-Pequignot, E.; Hercend, T.; Tribel,
F.
#journal Mol. Immunol. (1990) 27:1091-1102
#title Cloning and expression of a lymphocyte activation gene
(LAG-1).
#cross-references MUID:91061800
#accession JH0319
#status translation not shown
#molecule_type DNA
#residues 1-92 #label BAI
#cross-references GB:X53682; NID:g34217; PID:g34218
#experimental_source natural killer cell, strain CD3-CD2+, FS, S11B5
REFERENCE A40978
#authors Napolitano, M.; Modi, W.S.; Cevario, S.J.; Gnarr, J.R.;
Senequez, H.N.; Leonard, W.J.
#journal J. Biol. Chem. (1991) 266:17531-17536
#title The gene encoding the Act-2 cytokine. Genomic structure,
HTLV-I/tax responsiveness of 5' upstream sequences, and
chromosomal localization.
#cross-references MUID:91373378
#accession A40978
#molecule_type DNA
#residues 1-14, 'S', '16-69, 'G', '71-92 #label NAP
#cross-references GB:M69201; NID:g178021
#note 15-Ala was also found
REFERENCE A31767
#authors Lipos, M.A.; Napolitano, M.; Jeang, K.T.; Chang, N.T.;
Leonard, W.J.
#journal Proc. Natl. Acad. Sci. U.S.A. (1988) 85:9704-9708
#title Identification, cloning, and characterization of an immune
activation gene.
#cross-references MUID:89071764
#accession A31767
#molecule_type mRNA
#residues 1-92 #label LIP
#cross-references GB:J04130; NID:g178017; PID:g178018
REFERENCE A37411
#authors Chang, H.C.; Reinherz, E.L.
#journal Eur. J. Immunol. (1989) 19:1045-1051
#title Isolation and characterization of a cDNA encoding a putative
cytokine which is induced by stimulation via the CD2
structure on human T lymphocytes.
#cross-references MUID:89325421
#accession A37411
#molecule_type mRNA
#residues 1-92 #label CHA
REFERENCE A30574
#cross-references GB:X16166; NID:g32035; PID:g32036
#accession A30574
#authors Zipfel, P.F.; Balke, J.; Irving, S.G.; Kelly, K.; Stebenlist,
U.
#journal J. Immunol. (1989) 142:1582-1590
#title Mitogenic activation of human T cells induces two closely
related genes which share structural similarities with a
new family of secreted factors.
#cross-references MUID:89140347
#accession B30574
#molecule_type mRNA
#residues 1-19, 'U', '21-92 #label ZIP
#cross-references GB:M25316; NID:g602454; PID:g602455
REFERENCE A45817
#authors Miller, M.D.; Hata, S.; Malefyt, R.D.W.; Krangel, M.S.
#journal J. Immunol. (1989) 143:2907-2916
#title A novel polypeptide secreted by activated human T
lymphocytes.

#cross-references MUID:90038522
#accession B45817
##molecule_type mRNA
##residues 7-55,'I','S','T','I',81-92 ##label MIL
#cross-references GB:M57503; NID:93339726; PID:93339727
REFERENCE A30552
#authors Brown, K.D.; Zurawski, S.M.; Mosmann, T.R.; Zurawski, G.
#journal J. Immunol. (1989) 142:679-687
#title A family of small inducible proteins secreted by leukocytes are members of a new superfamily that includes leukocyte and fibroblast-derived inflammatory agents, growth factors, and indicators of various activation processes.
#cross-references MUID:89093958
#accession D30552
##molecule_type mRNA
##residues 1-39,'REASS',46-92 ##label BRO
#cross-references GB:M23502; NID:9533212; PID:9533213
REFERENCE A52206
#authors Clore, G.M.; Lodi, P.J.; Garrett, D.S.; Gronenborn, A.M.
#submission submitted to the Brookhaven Protein Data Bank, January 1994
#cross-references PDB:1HUM
#contents annotation, conformation and disulfide bond assignments by (1)H-NMR, residues 24-92
COMMENT This protein is secreted by activated lymphocytes and monocytes. It is bound by chemokine (C-C) receptor 5 (see PIR:A43113) and receptor 1 (see PIR:A45177).
GENETICS
#gene GDB:1AG1
##cross-references GDB:127451; OMIM:153335
#map_position 17q21-17q21
#introns 26/1: 64/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS chemotaxis; cytokine; inflammation
FEATURE
1-23
24-92
34-58,35-74
SUMMARY #length 92 #molecular_weight 10212 #checksum 7597
Query Match 81.9%; Score 77; DB 1; Length 92;
Best Local Similarity 66.7%; Pred. No. 3.04e-04;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;
DB 72 QVCADPSESWQ 83
QY 1 EICADPSQKWO 12
RESULT 12
ENTRY A30574 #type complete
TITLE macrophage inflammatory protein 1-alpha precursor - human
ALTERNATE_NAMES LD78-alpha protein precursor; lymphocyte tumor promoter-induced protein; macrophage inflammatory protein homolog GOS19-1; MIP-1alpha; pM464; small inducible cytokine A3; T-cell activation protein 1
ORGANISM #formal_name Homo sapiens #common_name man
DATE 03-Aug-1992 #sequence_revision 03-Aug-1992 #text_change 29-May-1998
ACCESSIONS A35673; A30574; A30412; A24198; A30908
REFERENCE A35673
#authors Nakaio, M.; Nomiya, H.; Shimada, K.
#journal Mol. Cell. Biol. (1990) 10:3646-3658
#title Structures of human genes coding for cytokine LD78 and their expression.
#cross-references MUID:90287155
#accession A35673
##molecule_type DNA
##residues 1-92 ##label NAK
#cross-references GB:D90144; NID:9219905; PID:01014875; PID:9219906
REFERENCE A30574
#authors Zupfel, P.F.; Balke, J.; Irving, S.G.; Kelly, K.; Stebenlist, U.

#journal J. Immunol. (1989) 142:1582-1590
#title Mitogenic activation of human T cells induces two closely related genes which share structural similarities with a new family of secreted factors.
#cross-references MUID:89140347
#accession A30574
##molecule_type mRNA
##residues 1-92 ##label ZIP
#cross-references GB:M25315; NID:9602452; PID:9602453
REFERENCE A30412
#authors Blum, S.; Forsdyke, R.E.; Forsdyke, D.R.
#journal DNA Cell Biol. (1990) 9:589-602
#title Three human homologs of a murine gene encoding an inhibitor of stem cell proliferation.
#cross-references MUID:91103879
#accession A30412
##molecule_type mRNA
##residues 1-92 ##label BLU
REFERENCE A24198
#authors Obaru, K.; Fukuda, M.; Maeda, S.; Shimada, K.
#journal J. Biochem. (1986) 99:885-894
#title A cDNA clone used to study mRNA inducible in human tonsillar lymphocytes by a tumor promoter.
#cross-references MUID:86223879
#accession A24198
#status preliminary
##molecule_type mRNA
##residues 1-92 ##label OBA
GENETICS
#gene GDB:SCYA3
##cross-references GDB:120368; OMIM:182283
#map_position 17q11-17q21
CLASSIFICATION #superfamily macrophage inflammatory protein
FEATURE
1-20
21-92
33-57,34-73
SUMMARY #domain signal sequence #status predicted #label SIG\
#product macrophage inflammatory protein 1-alpha #status predicted #label MAT\
#disulfide_bonds #status predicted
#length 92 #molecular_weight 10085 #checksum 4316
Query Match 81.9%; Score 77; DB 2; Length 92;
Best Local Similarity 66.7%; Pred. No. 3.04e-04;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;
DB 71 QVCADPSESWQ 82
QY 1 EICADPSQKWO 12
RESULT 13
ENTRY B35673 #type complete
TITLE LD78-beta protein precursor - human
ALTERNATE_NAMES macrophage inflammatory protein homolog GOS19-2; small inducible cytokine A4
ORGANISM #formal_name Homo sapiens #common_name man
DATE 28-Sep-1990 #sequence_revision 28-Sep-1990 #text_change 24-Sep-1998
ACCESSIONS B35673; B30412; S10157; B30908
REFERENCE B35673
#authors Nakaio, M.; Nomiya, H.; Shimada, K.
#journal Mol. Cell. Biol. (1990) 10:3646-3658
#title Structures of human genes coding for cytokine LD78 and their expression.
#cross-references MUID:90287155
#accession B35673
#status preliminary
##molecule_type DNA
##residues 1-93 ##label NAK
#cross-references GB:D90145; NID:9219907; PID:01014876; PID:9219908
REFERENCE A30412
#authors Blum, S.; Forsdyke, R.E.; Forsdyke, D.R.
#journal DNA Cell Biol. (1990) 9:589-602
#title Three human homologs of a murine gene encoding an inhibitor

of stem cell proliferation.

```
#cross-references MWID:91103879
#accession B30412
#status preliminary; not compared with conceptual translation
#molecule-type DNA
#residues 1-93 ##label BLU
#cross-references GB:M24110; GB:M32338; NID:q182848; PID:q182849
REFERENCE S10157
#authors Irving, S.G.; Zipfel, P.F.; Balke, J.; McBride, O.W.; Morton, C.C.; Burd, P.R.; Siebenlist, U.; Kelly, K.
#journal Nucleic Acids Res. (1990) 18:3261-3270
#title Two inflammatory mediator cytokine genes are closely linked and variably amplified on chromosome 17q.
#cross-references MWID:90287702
#accession S10157
#status preliminary
#molecule-type mRNA
#residues 1-93 ##label IRV
#cross-references EMBL:X52149; NID:q34750; PID:q296666
COMMENT This protein is a member of a "small inducible" or "activation specific" gene family, is likely to be an early-acting interleukin, and is the product of a putative 60/61 switch gene.
GENERIC
#gene GDB:SCYA4
#cross-references GDB:120369; OMTM:182284
#map_position 17q11-17q21
#introns 26/1; 64/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS cytokine
FEATURE
1-22 #domain signal sequence #status predicted #label SIG\
23-93 #product CD78-beta protein #status predicted #label MAT
SUMMARY #length 93 #molecular-weight 10161 #checksum 7784
Query Match 81.9%; Score 77; DB 2; Length 93;
Best Local Similarity 66.7%; Pred. No. 3,04e-04;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;
Db 72 QVCADPSEMVQ 83
:::|||||::|
QY 1 EICADPSQKWVQ 12

RESULT 14
ENTRY JN0841 #type complete
TITLE Interleukin-8 - dog
ORGANISM #formal_name Canis lupus familiaris #common_name dog
DATE 19-May-1994 #sequence_revision 19-May-1994 #text_change 12-Apr-1995
ACCESSION JN0841
REFERENCE Iihikawa, J.; Suzuki, S.; Hotta, K.; Hirota, Y.; Mizuno, S.; Suzuki, K.
#journal Gene (1993) 131:305-306
#title Cloning of a canine gene homologous to the human interleukin-8-encoding gene.
#accession JN0841
#molecule-type DNA
#residues 1-95 ##label ISH
COMMENT This protein is a polymorphonuclear leukocytes chemotactic factor and is involved in the host defense function.
GENERIC
#introns 22/1; 67/2
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 95 #molecular-weight 10611 #checksum 3157
Query Match 80.9%; Score 76; DB 2; Length 95;
Best Local Similarity 66.7%; Pred. No. 4,91e-04;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
Db 75 EVCLDPKRWVQ 86
1:1:1:1:1:1:1
QY 1 EICADPSQKWVQ 12
```

```
RESULT 15
ENTRY JC2478 #type complete
TITLE eotaxin - rat
ORGANISM #formal_name Rattus norvegicus #common_name Norway rat
DATE 21-Feb-1995 #sequence_revision 05-Apr-1995 #text_change 08-Sep-1997
ACCESSION JC2478
REFERENCE Jose, P.J.; Adcock, I.M.; Griffiths-Johnson, D.A.; Berkman, N.; Wells, T.N.C.; Williams, T.J.; Power, C.A.
#journal Biochem. Biophys. Res. Commun. (1994) 205:788-794
#title Eotaxin: Cloning of an eosinophil chemottractant cytokine and increased mRNA expression in allergen-challenged guinea-pig lungs.
#accession JC2478
#molecule-type mRNA
#residues 1-96 ##label JOS
#cross-references EMBL:X77603; NID:q602551; PID:q602552
COMMENT This protein is identified as a potent eosinophil chemoattractant.
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS glycoprotein
FEATURE
1-23 #domain signal sequence #status predicted #label SIG\
24-96 #product eotaxin #status predicted #label MAT\
#binding_site carbohydrate (Thr) (covalent) #status predicted
SUMMARY #length 96 #molecular-weight 10695 #checksum 7329
Query Match 80.9%; Score 76; DB 2; Length 96;
Best Local Similarity 81.8%; Pred. No. 4,91e-04;
Matches 9; Conservative 0; Mismatches 2; Indels 0; Gaps 0;
Db 71 ICADPKKKWVQ 81
|||||
QY 2 ICADPSQKWVQ 12

RESULT 16
ENTRY I48099 #type complete
TITLE eotaxin precursor - guinea pig
ORGANISM #formal_name Cavia porcellus #common_name guinea pig
DATE 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 09-May-1997
ACCESSION I48099
REFERENCE Rothenberg, M.E.; Luster, A.D.; Lilly, C.M.; Drazen, J.M.; Leder, P.
#journal J. Exp. Med. (1995) 181:1211-1216
#title Constitutive and allergen-induced expression of eotaxin mRNA in the guinea pig lung.
#cross-references MWID:95173589
#accession I48099
#status preliminary; translated from GB/EMBL/DBJ
#molecule-type mRNA
#residues 1-96 ##label RES
#cross-references EMBL:U18941; NID:q687655; PID:q687656
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 96 #molecular-weight 10753 #checksum 7236
Query Match 80.9%; Score 76; DB 2; Length 96;
Best Local Similarity 81.8%; Pred. No. 4,91e-04;
Matches 9; Conservative 0; Mismatches 2; Indels 0; Gaps 0;
Db 71 ICADPKKKWVQ 81
|||||
QY 2 ICADPSQKWVQ 12

RESULT 17
ENTRY S42496 #type complete
TITLE Interleukin 8 - sheep
```

ORGANISM #formal_name Ovis orientalis aries, Ovis ammon aries
#common_name domestic sheep
DATE 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change
08-Sep-1997
ACCESSIONS S42496
#residues 1-103 #label LIN
#cross-references GB:M65923; NID:q164520; PID:q164521
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 103 #molecular-weight 11633 #checksum 8835

Query Match 80.9%; Score 76; DB 2; Length 103;
Best Local Similarity 66.7%; Pred. No. 4.91e-04;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 75 EYCLDPKREKWKQ 86
1 EICADPSQKWKQ 12

RESULT 18
ENTRY 146997 #type complete
TITLE interleukin-8 - sheep
ORGANISM #formal_name Ovis sp. #common_name sheep
DATE 21-Feb-1997 #sequence_revision 21-Feb-1997 #text_change
09-May-1997
ACCESSIONS 146997
REFERENCE Secov, H.F.; Yoshimura, T.; Wood, P.R.; Colditz, I.G.
#authors Immunol. Cell Biol. (1994) 72:398-405.
#journal Cloning, sequencing, expression and inflammatory activity in
#title Skin of ovine interleukin-8.
#cross-references MUID:95137691
#accession 146997
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-101 #label SEO
#cross-references GB:S74436; NID:q786590; PID:q786591
GENETICS
#gene OIL-8
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 101 #molecular-weight 11292 #checksum 294

Query Match 80.9%; Score 76; DB 2; Length 101;
Best Local Similarity 66.7%; Pred. No. 4.91e-04;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 75 EYCLDPKREKWKQ 86
1 EICADPSQKWKQ 12

RESULT 19
ENTRY A53096 #type complete
TITLE interleukin-8 precursor - pig
ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
DATE 02-Jun-1995 #sequence_revision 02-Jun-1995 #text_change
08-Sep-1997
ACCESSIONS A53096
REFERENCE Lin, G.; Pearson, A.E.; Scamurra, R.W.; Zhou, Y.; Baarsch, M.J.; Weiss, D.J.; Murtalugh, M.P.
#authors J. Biol. Chem. (1994) 269:77-85
#journal Regulation of interleukin-8 expression in porcine alveolar
#title macrophages by bacterial lipopolysaccharide.

#accession A53096
#status preliminary
#molecule_type mRNA
#residues 1-103 #label LIN
#cross-references GB:M65923; NID:q164520; PID:q164521
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 103 #molecular-weight 11633 #checksum 8835

Query Match 80.9%; Score 76; DB 2; Length 103;
Best Local Similarity 66.7%; Pred. No. 4.91e-04;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 75 EYCLDPKREKWKQ 86
1 EICADPSQKWKQ 12

RESULT 20
ENTRY A44253 #type complete
TITLE alveolar macrophage chemotactic factor-I (AMCF-I)
ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
DATE 30-Apr-1993 #sequence_revision 18-Nov-1994 #text_change
23-Feb-1996
ACCESSIONS A44253
REFERENCE Goodman, R.B.; Foster, D.C.; Mathews, S.L.; Osborn, S.G.; Kulper, J.L.; Forstrom, J.W.; Martin, T.R.
#authors Biochemistry (1992) 31:10483-10490
#journal Molecular cloning of porcine alveolar macrophage-derived
#title neutrophil chemotactic factors I and II: identification of
#cross-references MUID:93041741
#accession A44253
#status preliminary
#molecule_type mRNA; protein
#residues 1-103 #label GOO
#experimental_source alveolar macrophage
#note Sequence extracted from NCBI backbone (NCBIN:117415,
NCBIP:117416)
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 103 #molecular-weight 11677 #checksum 8904

Query Match 80.9%; Score 76; DB 2; Length 103;
Best Local Similarity 66.7%; Pred. No. 4.91e-04;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 75 EYCLDPKREKWKQ 86
1 EICADPSQKWKQ 12

RESULT 21
ENTRY S07723 #type complete
TITLE immediate-early serum-responsive protein JE - rat
ALTERNATE_NAMES monocyte chemoattractant protein-1
ORGANISM #formal_name Rattus norvegicus #common_name Norway rat
DATE 29-Jan-1993 #sequence_revision 29-Jan-1993 #text_change
08-Sep-1997
ACCESSIONS S07723; JN0128
REFERENCE Timmer, H.T.M.; Pronk, G.J.; Bos, J.L.; van der Eb, A.J.
#authors Nucleic Acids Res. (1990) 18:23-34
#journal Analysis of the rat JE gene promoter identifies an AP-1
#title binding site essential for basal expression but not for TPA
induction.
#cross-references MUID:90174947
#accession S07723
#molecule_type DNA
#residues 1-148 #label TIM
#cross-references EMBL:X17053; NID:g55530; PID:g55531
REFERENCE JN0128
#authors Yoshimura, T.; Takeya, M.; Takahashi, K.

#journal Biochem. Biophys. Res. Commun. (1991) 174:504-509
#title Molecular cloning of rat monocyte chemoattractant protein-1 (MCP-1) and its expression in rat spleen cells and tumor cell lines.
#cross-references MUID:91128376
#accession JN0128
##molecule-type mRNA
##residues 1-148 ##label YOS
##cross-references GB:M57441; NID:g205333; PID:g205334
##experimental_source spleen cells
#note the authors translated the codon GAA for residue 62 as Lys and GCT for residue 63 as Leu

GENETICS
#introns 26/1, 65/2
CLASSIFICATION #superfamily macrophage inflammatory protein
FEATURE
1-23 #domain signal sequence #status predicted #label SIG
24-148 #product immediate-early serum-responsive protein JE
#status predicted #label MAT
SUMMARY #length 148 #molecular-weight 16460 #checksum 4876

Query Match 80.9%; Score 76; DB 2; Length 148;
Best Local Similarity 75.0%; Pred. No. 4, 91e-04;
Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 73 EICADPKKRWQ 84
111111: 111
Oy 1 EICADPSQKWQ 12

RESULT 22
ENTRY 152322 #type complete
TITLE macrophage inflammatory protein-1alpha - rat
ORGANISM #formal_name Rattus norvegicus #common_name Norway rat
DATE 29-May-1998 #sequence_revision 29-May-1998 #text_change 02-Jul-1998

ACCESSIONS
REFERENCE 152322
#authors Shi, M.M.; Godleski, J.J.; Paulauskis, J.D.
#journal Biochem. Biophys. Res. Commun. (1995) 211:289-295
#title Molecular cloning and posttranscriptional regulation of macrophage inflammatory protein-1 alpha in alveolar macrophages
#cross-references MUID:92598037
#accession 152322
##status preliminary; translated from GB/EMBL/DBJ
##molecule-type mRNA
##residues 1-92 ##label RES
##cross-references EMBL:U22414; NID:g790633; PID:g790633
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 92 #molecular-weight 10335 #checksum 3184

Query Match 79.8%; Score 75; DB 2; Length 92;
Best Local Similarity 66.7%; Pred. No. 7, 91e-04;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 71 OICADPKKRWQ 82
:11111: 111
Oy 1 EICADPSQKWQ 12

RESULT 23
ENTRY A46539 #type complete
TITLE monocyte chemoattractant cytokine RANTES precursor - mouse
ALTERNATE_NAMES Murantes
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 18-Jun-1993 #sequence_revision 16-Aug-1996 #text_change 11-Sep-1998
ACCESSIONS 148875; A46539; 148654; 156970
REFERENCE 148875
#authors Danoff, T.M.; Lallely, P.A.; Chang, Y.S.; Heeger, P.S.; Neilson, E.G.
#journal J. Immunol. (1994) 152:1182-1189

#title Cloning, genomic organization, and chromosomal localization of the Scys5 gene encoding the murine chemokine RANTES.
#cross-references MUID:94132613
#accession 148875
##status preliminary; translated from GB/EMBL/DBJ
##molecule-type DNA
##residues 1-91 ##label DAN
##cross-references EMBL:U02298; NID:g460090; PID:g460091
REFERENCE A46539
#authors Schall, T.J.; Simpson, N.J.; Mak, J.Y.
#journal Eur. J. Immunol. (1992) 22:1477-1481
#title Molecular cloning and expression of the murine RANTES cytokine: structural and functional conservation between mouse and man.
#cross-references MUID:92289805
#accession A46539
##molecule-type mRNA
##residues 1-18, 'A', 20-91 ##label SCH
##experimental_source macrophage cell line P05-1.8
#note sequence extracted from NCBI backbone (NCBI:106768, NCBI:P:106770)

REFERENCE 148654
#authors Shin, H.S.; Drysdale, B.E.; Shin, M.L.; Noble, P.W.; Fisher, S.N.; Paznekas, W.A.
#journal Mol. Cell. Biol. (1994) 14:2914-2925
#title Definition of a lipopolysaccharide-responsive element in the 5'-flanking regions of Murantes and crg-2.
#cross-references MUID:94217689
#accession 148654
##status translation not shown; translated from GB/EMBL/DBJ
##molecule-type DNA
##residues 1-91 ##label SHI
##cross-references EMBL:X70675; NID:g475205; PID:g475206
REFERENCE 156970
#authors Neilson, E.G.; Krensky, A.
#journal Kidney Int. (1992) 41:220-225
#title Isolation and characterization of cDNA from renal tubular epithelium encoding murine Rantes: A small intercline from the Scy superfamily.
#cross-references MUID:92277990
#accession 156970
##status translated from GB/EMBL/DBJ
##molecule-type mRNA
##residues 1-40, 'E', 42-91 ##label NEI
##cross-references GB:M77471; NID:g200649; PID:g200650
COMMENT This chemoattractant for monocytes but not neutrophils is an immediate-early response protein to LPS stimulation.

GENETICS
#introns 26/1, 63/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS chemotaxis; cytokine; immediate-early protein; inflammation
FEATURE 1-23
24-91 #domain signal sequence #status predicted #label SIG
SUMMARY #product monocyte chemoattractant cytokine RANTES
#status predicted #label MAT
#length 91 #molecular-weight 10071 #checksum 3010

Query Match 78.7%; Score 74; DB 1; Length 91;
Best Local Similarity 58.3%; Pred. No. 1, 27e-03;
Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 71 OVCANPKKRWQ 82
:11111: 111
Oy 1 EICADPSQKWQ 12

RESULT 24
ENTRY 146730 #type complete
TITLE immune activation gene 2 - rabbit
ORGANISM #formal_name Oryctolagus cuniculus #common_name domestic rabbit
DATE 14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change 09-May-1997

ACCESSIONS I46730
REFERENCE I46730
#authors Mori, S.; Goto, K.; Goto, F.; Mutakami, K.; Ohkawara, S.;
#journal Yoshinaga, M.
#title Int. Immunol. (1994) 6:149-156
#cross-references MUD:94198229
#accession I46730
#status preliminary; translated from GB/EMBL/DBJ
#molecule-type mRNA
#residues 1-92 #label MOR
#cross-references GB:D17402; NID:9599577; PID:9599578
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 92 #molecular-weight 10066 #checksum 5637

Query Match 78.7%; Score 74; DB 2; Length 92;
Best Local Similarity 58.3%; Pred. No. 1.27e-03;
Matches 7; Conservative 4; Mismatches 1; Indels 0; Gaps 0;

Db 72 QVCANPSESQWQ 83
Qy 1 EICADPSQKWQ 12

RESULT 25
ENTRY JC5295 #type complete
TITLE monocytic chemotactic protein-2 - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 02-May-1997 #sequence_revision 18-Jul-1997 #text_change
31-Oct-1997

ACCESSIONS JC5295
REFERENCE JC5295
#authors Van Collille, E.; Froyen, G.; Nomiya, H.; Miura, R.; Fiten,
P.; Van Aelst, I.; Van Damme, J.; Odenakker, G.
#journal Biochem. Biophys. Res. Commun. (1997) 231:726-730
#title Human monocytic chemotactic protein-2: cDNA cloning and
#accession regulated expression of mRNA in mesenchymal cells.
JC5295
#molecule-type mRNA
#residues 1-99 #label VAN
#cross-references GB:Y10802; NID:91924937; PID:9294088; PID:91924938
#experimental_source bone marrow

COMMENT This protein belongs to the beta-chemokine family which is one of
the major HIV-suppressive factors. It plays roles in autoimmune
processes such as multiple sclerosis and rheumatoid arthritis and
in tumor biology, and contribute to the trafficking and
recruitment of the responsive cells.

GENETICS
#gene mcp-2
CLASSIFICATION #superfamily macrophage inflammatory protein
FEATURE 1-23
24-99

SUMMARY #length 99 #molecular-weight 11246 #checksum 6596

Query Match 78.7%; Score 74; DB 2; Length 99;
Best Local Similarity 58.3%; Pred. No. 1.27e-03;
Matches 7; Conservative 4; Mismatches 1; Indels 0; Gaps 0;

Db 73 EVCADPKRQWVR 84
Qy 1 EICADPSQKWQ 12

RESULT 26
ENTRY I46871 #type complete
TITLE interleukin-8 - rabbit
ALTERNATE_NAMES #neutrophil attractant/activation protein-1
ORGANISM #formal_name Oryctolagus cuniculus #common_name domestic
rabbit
DATE 14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change

ACCESSIONS 09-Aug-1997
REFERENCE I46871; S13052
#authors Yoshimura, T.; Yuhki, N.
#journal J. Immunol. (1991) 146:3483-3488
#title Neutrophil attractant/activation protein-1 and monocyte
chemoattractant protein-1 in rabbit: cDNA cloning and their
expression in spleen cells.
#cross-references MUD:91225489
#accession I46871
#status preliminary; translated from GB/EMBL/DBJ
#molecule-type mRNA
#residues 1-101 #label YOS
#cross-references GB:M57439; NID:9165552; PID:9165553
REFERENCE S13052
#authors Beaudien, B.C.; Collins, P.D.; Jose, P.J.; Toty, N.F.;
Hsuan, J.; Waterfield, M.D.; Williams, T.J.
#journal Biochem. J. (1990) 271:797-801
#title A novel neutrophil chemoattractant generated during an
inflammatory reaction in the rabbit peritoneal cavity in
vivo. Purification, partial amino acid sequence and
structural relationship to interleukin 8.
#cross-references MUD:91058518
#accession S13052
#molecule-type protein
#residues 23-33; 'X', 35, 'X', 37-46, 'X', 48-49, 'I', 51-53 #label BEA
CLASSIFICATION #superfamily beta-thromboglobulin
KEYWORDS cytokine
SUMMARY #length 101 #molecular-weight 11402 #checksum 1085

Query Match 77.7%; Score 73; DB 2; Length 101;
Best Local Similarity 66.7%; Pred. No. 2.04e-03;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 75 ELCLDPKKEKQWQ 86
Qy 1 EICADPSQKWQ 12

RESULT 27
ENTRY A30209 #type complete
TITLE PDGF-inducible JE glycoprotein precursor - mouse
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 01-Dec-1989 #sequence_revision 01-Dec-1989 #text_change
01-May-1998

ACCESSIONS A30209; A44771; A30861
REFERENCE A30209
#authors Rollins, B.J.; Morrison, E.D.; Stiles, C.D.
#journal Proc. Natl. Acad. Sci. U.S.A. (1988) 85:3738-3742
#title Cloning and expression of JE, a gene inducible by
platelet-derived growth factor and whose product has
cytokine-like properties.
#cross-references MUD:88234501
#accession A30209
#molecule-type DNA
#residues 1-148 #label ROL
#cross-references GB:M19681; NID:9193486; PID:9387168; GB:M19682
REFERENCE A44771
#authors Kawahara, R.S.; Deuel, T.F.
#journal J. Biol. Chem. (1989) 264:679-682
#title Platelet-derived growth factor-inducible gene JE is a member
of a family of small inducible genes related to platelet
factor 4.
#accession A44771
#molecule-type DNA; mRNA
#residues 1-148 #label KA2
#cross-references GB:J04467; NID:9193488; PID:9387169

GENETICS
#gene JE
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS cytokine; glycoprotein
FEATURE

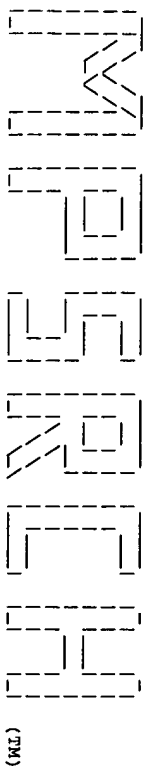
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Best Local Similarity	50.0%;	Pred. No. 2.08e-02;	
Matches	6;	Conservative	4; Mismatches 2; Indels 0; Gaps 0;
Dn	71 QVCANPEKKWVR 82	::::| | | |	
OY	1 EICADPSQKWVQ 12		
RESULT	30		
ENTRY	A32393	#type complete	
TITLE	macrophage inflammatory protein-1-alpha precursor - mouse		
ALTERNATE_NAMES	heparin-binding chemotaxis protein; LZG5B protein; SCI/MIP-1a; SIS alpha; stem cell inhibitor/macrophage inflammatory protein 1-alpha; T-cell activation protein alpha; TY5		
ORGANISM	#formal_name Mus musculus #common_name house mouse		
DATE	17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 08-Sep-1997		
ACCESSIONS	S11685; A32393; S04533; A53885; A30552; P50303; A27596; I56104		
REFERENCE	S11685		
#authors	Grove, M.; Lowe, S.; Graham, G.; Praggnell, I.; Plumb, M.		
#journal	Nucleic Acids Res. (1990) 18:5561		
#title	Sequence of the murine haemopoietic stem cell inhibitor/macrophage inflammatory protein 1-alpha gene.		
#cross-references	MIMD:91016858		
#accession	S11685		
#molecule_type	DNA		
#residues	1-92 ##label GNO		
#cross-references	EMBL:X53372; NID:g54062; PID:g297531		
#note	the authors' translation of the nucleotide sequence differs at several positions from the sequence given		
REFERENCE	A32393		
#authors	Kwon, B.S.; Weisman, S.M.		
#journal	Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1963-1967		
#title	CDNA sequence of two inducible T-cell genes.		
#cross-references	MIMD:89184547		
#accession	A32393		
#molecule_type	mRNA.		
#residues	1-92 ##label KMO		
#cross-references	GB:J04491; NID:g201524; PID:g201525		
REFERENCE	S04533		
#authors	Davatelis, G.; Tekamp-Olson, P.; Wolpe, S.D.; Hermesen, K.; Luedke, C.; Gallegos, C.; Colt, D.; Merryweather, J.; Ceramli, A.		
#journal	J. Exp. Med. (1988) 167:1939-1944		
#title	Cloning and characterization of a cDNA for murine macrophage inflammatory protein (MIP), a novel monokine with inflammatory and chemokinetic properties.		
#cross-references	MIMD:88258380		
#accession	S04533		
#molecule_type	mRNA		
#residues	1-48, 'E', '50-90', 'I', '92 ##label DA2		
#cross-references	EMBL:X12531		
#note	the authors translated the codon GAG for residue 49 as Asp and ART for residue 91 as Asn		
REFERENCE	A53885		
#authors	Davatelis, G.; Tekamp-Olson, P.; Wolpe, S.D.; Hermesen, K.; Luedke, C.; Gallegos, C.; Colt, D.; Merryweather, J.; Ceramli, A.		
#journal	J. Exp. Med. (1989) 170:2189		
#contents	erratum		
#accession	A53885		
#molecule_type	mRNA		
#residues	1-92 ##label DAY		
#cross-references	EMBL:X12531; NID:g53122; PID:g53123		
REFERENCE	A30552		
#authors	Brown, K.D.; Zurawski, S.M.; Mosmann, T.R.; Zurawski, G. J. Immunol. (1989) 142:679-687		

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#title      A family of small inducible proteins secreted by leukocytes
             are members of a new superfamily that includes leukocyte
             and fibroblast-derived inflammatory agents, growth factors,
             and indicators of various activation processes.
#cross-references MUID:89093958
#accession   A30552
             ##molecule-type mRNA
             ##residues 1-21,'L',23-61,'A',63-92 ##label BRO
#cross-references GB:M23447; NID:9533240; PID:9533241
REFERENCE
#authors    Sherry, B.; Tekamp-Olson, P.; Gallegos, C.; Bauer, D.;
             Davatelis, G.; Wolpe, S.D.; Mastarz, F.; Colt, D.; Cerami,
             A.
#journal    J. Exp. Med. (1988) 168:2251-2259
#title      Resolution of the two components of macrophage inflammatory
             protein 1, and cloning and characterization of one of those
             components, macrophage inflammatory protein 1 beta.
#cross-references MUID:89067830
#accession  PS0303
             ##molecule-type mRNA
             ##residues 24-33,'XX',36-54 ##label SHE
REFERENCE
#authors    Wolpe, S.D.; Davatelis, G.; Sherry, B.; Beutler, B.; Hesse,
             D.G.; Nguyen, H.T.; Moldawer, L.L.; Nathan, C.F.; Lowry,
             S.F.; Cerami, A.
#journal    J. Exp. Med. (1988) 167:570-581
#title      Macrophages secrete a novel heparin-binding protein with
             inflammatory and neutrophil chemokinetic properties.
#cross-references MUID:88154745
#accession  A27596
             ##molecule-type protein
             ##residues 24-33,'XX',36-42 ##label WOL
REFERENCE
#note       26-Met, 30-Pro, and 39-Thr were also found
#authors    Widmer, U.; Yang, Z.; van Deventer, S.; Manogue, K.R.;
             Sherry, B.; Cerami, A.
#journal    J. Immunol. (1991) 146:4031-4040
#title      Genomic structure of murine macrophage inflammatory
             protein-1 alpha and conservation of potential regulatory
             sequences with a human homolog, LD78.
#cross-references MUID:91237116
#accession  I56104
             ##status preliminary; translated from GB/EMBL/DBJ
             ##molecule-type DNA
             ##residues 1-92 ##label RGS
#COMMENT    ##cross-references GB:M73061; NID:9199694; PID:9199695
             This protein is a monokine.
GENETICS
#introns    23/3; 26/1; 63/2
CLASSIFICATION
#superfamily macrophage inflammatory protein
KEYWORDS    heparin binding
FEATURE
1-23        #domain signal sequence #status predicted #label SIG\
24-92       #product macrophage inflammatory protein #status
             experimental #label MAT
SUMMARY
#length 92 #molecular-weight 10345 #checksum 5009
Query Match 72.3%, Score 68; DB 2; Length 92;
Best Local Similarity 58.3%; Pred. No. 2.08e-02;
Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

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Db 71 QICADSKETWQ 82
 QY 1 EICADPSOKWQ 12
 Search completed: Thu Apr 1 07:38:03 1999
 Job time : 18 secs.



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MPearch_pp protein - protein database search, using Smith-Waterman algorithm

Run on: Thu Apr 1 07:36:21 1999; MasPar time 2.30 Seconds

Tabular output not generated. 139.878 Million cell updates/sec

Title: >US-08-927-939-11

Description: (1-12) from US08927939.pep

Perfect Score: 94

Sequence: 1 EICADPSOKWVQ 12

Scoring table: PAM 150

Gap 15

Searched: 74019 segs, 26840295 residues

Post-processing: Minimum Match 0%

Listing first 100 summaries

Database: swiss-prot36

1:swissprot

Statistics: Mean 25.218; Variance 32.555; scale 0.775

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result	No.	Score	Query	Match	Length	ID	Description	Pred. No.
1	92	97.9	99	1	MCP3_HUMAN	MONOCYTE CHEMOTACTIC P	7.99e-09	
2	90	95.7	120	1	MCP1_CAVPO	MONOCYTE CHEMOTACTIC P	2.52e-08	
3	89	94.7	99	1	MCP1_HUMAN	MONOCYTE CHEMOTACTIC P	4.46e-08	
4	89	94.7	101	1	MCP1_CANFA	MONOCYTE CHEMOTACTIC P	4.46e-08	
5	88	93.6	99	1	MCP1_PIG	MONOCYTE CHEMOTACTIC P	7.89e-08	
6	86	91.5	99	1	MCP2_PIG	MONOCYTE CHEMOTACTIC P	2.44e-07	
7	86	91.5	99	1	MCP2_BOVIN	MONOCYTE CHEMOTACTIC P	2.44e-07	
8	85	90.4	98	1	MCP4_HUMAN	MONOCYTE CHEMOTACTIC P	4.29e-07	
9	84	89.4	99	1	MCPA_BOVIN	MONOCYTE CHEMOTACTIC P	7.51e-07	
10	83	88.3	125	1	MCP1_RABIT	MONOCYTE CHEMOTACTIC P	1.31e-06	
11	82	87.2	97	1	EOTA_MOUSE	EOTAXIN PRECURSOR (EOS	2.28e-06	
12	82	87.2	97	1	EOTA_RAT	EOTAXIN PRECURSOR (EOS	2.28e-06	
13	81	86.2	89	1	MIP4_HUMAN	MACROPHAGE INFLAMMATOR	3.96e-06	
14	81	86.2	97	1	EOTA_HUMAN	EOTAXIN PRECURSOR (EOS	3.96e-06	
15	78	83.0	104	1	MCP5_MOUSE	MONOCYTE CHEMOTACTIC P	2.04e-05	
16	77	81.9	92	1	MIL4_HUMAN	MACROPHAGE INFLAMMATOR	3.51e-05	
17	77	81.9	92	1	MILB_HUMAN	MACROPHAGE INFLAMMATOR	3.51e-05	
18	77	81.9	93	1	MILC_HUMAN	TONSILLAR LYMPHOCYTE L	3.51e-05	
19	76	80.9	96	1	EOTA_CAVPO	EOTAXIN PRECURSOR (EOS	6.01e-05	
20	76	80.9	101	1	IL8_SHEEP	INTERLEUKIN-8 PRECURSOR	6.01e-05	
21	76	80.9	101	1	IL8_CANFA	INTERLEUKIN-8 PRECURSOR	6.01e-05	
22	76	80.9	103	1	IL8_PIG	INTERLEUKIN-8 PRECURSOR	6.01e-05	
23	76	80.9	148	1	MCP1_RAT	MONOCYTE CHEMOTACTIC P	6.01e-05	

24	75	79.8	92	1	MIL4_RAT	MACROPHAGE INFLAMMATOR	1.03e-04
25	75	79.8	93	1	CCCL_HUMAN	CHEMOKINE CC-1 PRECURS	1.03e-04
26	75	79.8	109	1	CCCB_HUMAN	CHEMOKINE CC-3 PRECURS	1.03e-04
27	74	78.7	74	1	MCP3_BOVIN	MONOCYTE CHEMOTACTIC P	1.75e-04
28	74	78.7	91	1	SISD_MOUSE	T-CELL SPECIFIC RANTES	1.75e-04
29	74	78.7	92	1	MILB_RABIT	MACROPHAGE INFLAMMATOR	1.75e-04
30	74	78.7	92	1	SISD_RAT	T-CELL SPECIFIC RANTES	1.75e-04
31	74	78.7	97	1	MCP3_MOUSE	MONOCYTE CHEMOTACTIC P	1.75e-04
32	74	78.7	99	1	MCP2_HUMAN	MONOCYTE CHEMOTACTIC P	1.75e-04
33	73	77.7	101	1	IL8_BOVIN	INTERLEUKIN-8 PRECURSO	2.96e-04
34	73	77.7	101	1	IL8_RABIT	INTERLEUKIN-8 PRECURSO	2.96e-04
35	72	76.6	148	1	MCP1_MOUSE	MONOCYTE CHEMOTACTIC P	5.01e-04
36	70	74.5	92	1	MILB_RAT	MACROPHAGE INFLAMMATOR	1.42e-03
37	69	73.4	90	1	MILB_CHICK	MACROPHAGE INFLAMMATOR	2.37e-03
38	68	72.3	50	1	SISD_PIG	T-CELL SPECIFIC RANTES	3.95e-03
39	68	72.3	91	1	SISD_HUMAN	T-CELL SPECIFIC RANTES	3.95e-03
40	68	72.3	91	1	SISD_CAVPO	T-CELL SPECIFIC RANTES	3.95e-03
41	68	72.3	92	1	MIL4_MOUSE	MACROPHAGE INFLAMMATOR	3.95e-03
42	68	72.3	114	1	ILN_MOUSE	LYMPHOTACTIN PRECURSOR	3.95e-03
43	67	71.3	89	1	SDP1_MOUSE	STROMAL CELL-DERIVED F	6.57e-03
44	67	71.3	92	1	MILB_MOUSE	MACROPHAGE INFLAMMATOR	6.57e-03
45	67	71.3	93	1	SDP1_HUMAN	STROMAL CELL-DERIVED F	6.57e-03
46	67	71.3	99	1	IL8_HUMAN	INTERLEUKIN-8 PRECURSO	6.57e-03
47	67	71.3	101	1	IL8_CAVPO	INTERLEUKIN-8 PRECURSO	6.57e-03
48	67	71.3	101	1	ILN_CAVPO	LYMPHOTACTIN PRECURSOR	6.57e-03
49	65	69.1	103	1	EMF1_CHICK	EMBRYO FIBROBLAST PROT	1.79e-02
50	64	68.1	96	1	MIL3_HUMAN	MACROPHAGE INFLAMMATOR	2.94e-02
51	64	68.1	116	1	C10_MOUSE	C10 PROTEIN PRECURSOR	2.94e-02
52	63	67.0	101	1	IL8_MACMU	INTERLEUKIN-8 PRECURSO	4.81e-02
53	63	67.0	101	1	IL8_CERTO	INTERLEUKIN-8 PRECURSO	4.81e-02
54	61	64.9	122	1	MILC_MOUSE	MACROPHAGE INFLAMMATOR	1.27e-01
55	60	63.8	98	1	MILB_HUMAN	MACROPHAGE INFLAMMATOR	2.05e-01
56	60	63.8	731	1	BGAL_MALDO	BETA-GALACTOSIDASE PRE	2.05e-01
57	59	62.8	114	1	LTN_HUMAN	LYMPHOTACTIN PRECURSOR	3.28e-01
58	59	62.8	694	1	PNKL_NPYAC	POTATIVE POLYNUCLEOTID	3.28e-01
59	55	58.5	85	1	KOC2_ECOLI	TRANSCRIPTIONAL REPRES	2.07e+00
60	55	58.5	117	1	YU9K_YEAST	HYPOTHETICAL 13.2 KD P	2.07e+00
61	54	57.4	379	1	YF68_PSEAE	HYPOTHETICAL 41.7 KD P	3.24e+00
62	54	57.4	532	1	INV2_YEAST	INVERTASE 4 PRECURSOR	3.24e+00
63	54	57.4	532	1	INV2_YEAST	INVERTASE 2 PRECURSOR	3.24e+00
64	54	57.4	532	1	INV2_YEAST	BETA-GALACTOSIDASE PRE	3.24e+00
65	54	57.4	828	1	BGAL_BRAOL	BETA-GALACTOSIDASE PRE	3.24e+00
66	53	56.4	92	1	SISF_MOUSE	SMALL INDUCIBLE CYTOKI	5.04e+00
67	53	56.4	94	1	TARC_HUMAN	THYMUS AND ACTIVATION	5.04e+00
68	53	56.4	831	1	NAP4_RHOSH	BETA-GLYCOSYL NITRATE RE	5.04e+00
69	53	56.4	832	1	BGAL_ASPOF	BETA-GALACTOSIDASE PRE	5.04e+00
70	52	55.3	281	1	PC1_MOUSE	PLASMA-CELL MEMBRANE G	5.04e+00
71	52	55.3	339	1	CD37_MOUSE	LEUKOCYTE ANTIGEN CD37	7.79e+00
72	52	55.3	460	1	YAS4_HAEIN	DELTA-AMINOLEVULINIC A	7.79e+00
73	52	55.3	641	1	E2BE_HUMAN	TRANSLATION INITIATION	7.79e+00
74	52	55.3	721	1	E2BE_RABIT	TRANSLATION INITIATION	7.79e+00
75	52	55.3	730	1	DCOR_LAC33	ONITHINE DECARBOXYLAS	7.79e+00
76	52	55.3	2179	1	POLG_HY14	GENOME POLYPROTEIN (CO	7.79e+00
77	51	54.3	473	1	TRX6_BRAE1	TRX6 PROTEIN (T-BOX PR	1.20e+01
78	51	54.3	584	1	CIR1_YEAST	SPINDLE POLE BODY ASSO	1.20e+01
79	50	53.2	286	1	YB0F_MOUSE	MELIOLD UPREGULATED PR	1.83e+01
80	50	53.2	356	1	YB0F_MOUSE	HYPOTHETICAL 44.3 KD P	1.83e+01
81	50	53.2	716	1	E2BE_RAT	TRANSLATION INITIATION	1.83e+01
82	50	53.2	731	1	BGAL_DIACA	POTATIVE BETA-GALACTOS	1.83e+01
83	50	53.2	835	1	CSM_LYCES	BETA-GALACTOSIDASE PRE	1.83e+01
84	50	53.2	841	1	CSM_DROME	PROTEIN-TYROSINE PHOSP	1.83e+01
85	50	53.2	886	1	MVP_HUMAN	MAJOR VAULT PROTEIN (M	1.83e+01
86	50	53.2	1021	1	Y2R2_DROME	HYPOTHETICAL 115 KD PR	1.83e+01
87	50	53.2	1239	1	V120_EBV	CAPSID ASSEMBLY PROTEI	1.83e+01
88	50	53.2	1433	1	VGLM_BUNYW	M POLYPROTEIN PRECURSO	1.83e+01
89	49	52.1	1131	1	V101_HUMAN	HYPOTHETICAL PROTEIN K	2.77e+01
90	49	52.1	1151	1	ASPI_HELAN	ANTHER-SPECIFIC PROTEI	2.77e+01
91	49	52.1	421	1	ENV_HVINS	ENVELOPE POLYPROTEIN G	2.77e+01
92	49	52.1	579	1	YR47_CAEEL	HYPOTHETICAL 66.0 KD P	2.77e+01
93	49	52.1	815	1	PHS8_ECOLI	GLYCOCEN PHOSPHORYLASE	2.77e+01
94	49	52.1	843	1	ENV_HV1Y2	ENVELOPE POLYPROTEIN G	2.77e+01
95	49	52.1	856	1	ENV_HV1SC	ENVELOPE POLYPROTEIN G	2.77e+01
96	49	52.1	861	1	ENV_HV1KB	ENVELOPE POLYPROTEIN G	2.77e+01

97 49 52.1 867 1 ENV_HVLJ3 ENVELOPE POLYPROTEIN G 2.77e+01
 98 49 52.1 873 1 PCL_HUMAN PLASMA-CELL MEMBRANE G 2.77e+01
 99 49 52.1 1238 1 PTP_MOUSE PROTEIN-TYROSINE PHOSP 2.77e+01
 100 49 52.1 1827 1 SUI5_HUMAN SUCRASE-ISOMALTAASE, IN 2.77e+01

ALIGNMENTS

RESULT 1
 ID MCP3_HUMAN STANDARD; PRT: 99 AA.
 AC P80098;
 FT 01-DEC-1992 (REL. 24, CREATED)
 DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
 DE 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 3 PRECURSOR (MCP-3) (MONOCYTE
 DE CHEMOTACTIC PROTEIN 3) (NC28).
 UN SCV47 OR MCP3.
 US HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A., AND SEQUENCE OF 31-67 AND 71-99.
 RX MEDLINE: 93213290.
 RA OPDENAKKER G., FROYEN G., FITTEN P., PROOST P., VAN DAMME J.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 191:535-542(1993).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 94375065.
 RA OPDENAKKER G., FITTEN P., NYS G., FROYEN G., VAN ROY N., SPELMAN F.,
 RA LAUREYS G., VAN DAMME J.;
 RL GENOMICS 21:403-408(1994).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 93305913.
 RA MINY A., CHALON P., GUILLEMOT J.C., KAGHAD M., LIAUZON P.,
 RA MAGAZIN M., MILOUX B., MINY C., RAMOND P., VITA N., LUPKER J.,
 RA SHIRE D., FERRARA P., CAPUT D.;
 RL EUR. CYTOKINE NETW. 4:99-110(1993).
 RN [4]
 RP SEQUENCE OF 30-99.
 RX TISSUE-OSTEOSARCOMA;
 RA VAN DAMME J., PROOST P., LENAERTS J.-P., OPDENAKKER G.;
 RL J. EXP. MED. 176:59-65(1992).
 RN [5]
 RP STRUCTURE BY NMR, AND SUBUNIT.
 RX MEDLINE: 97053697.
 RA KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.;
 RL FEBS LETT. 395:277-282(1996).
 RN [6]
 RP STRUCTURE BY NMR.
 RX MEDLINE: 97263733.
 RA MEUNIER S., BERNASSAU J.-M., GUILLEMOT J.-C., FERRARA P., DARBON H.;
 RA BIOCHEMISTRY 36:4412-4422(1997).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND
 CC EOSINOPHILS, BUT NOT NEUTROPHILS. ADJUNCTS MONOCYTE ANTI-TUMOR
 CC ACTIVITY. ALSO INDUCES THE RELEASE OF GELATINASE B. THIS PROTEIN
 CC CAN BIND HEPARIN.
 CC -1- SUBUNIT: MONOMER.
 CC -1- PTM: O-GLYCOSYLATED.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL: X72308; G313708; ALT_INIT.
 DR EMBL: X72309; -; NOT_ANNOTATED_CDS.
 DR EMBL: X71087; G288398; ALT_INIT.
 DR EMBL: X71087; G288398; ALT_INIT.
 DR EMBL: X71087; G288397; ALT_INIT.
 DR PIR: JCI478; JCI478.
 DR PIR: S32223; S32222.
 DR PIR: A54678; A54678.
 DR PDB: INCV; 15-OCT-97.
 DR MIM: 158106; -.
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.

KM CYTOKINE: CHEMOTAXIS; HEPARIN-BINDING; GLYCOPROTEIN; SIGNAL;
 KM INFLAMMATORY RESPONSE; 3D-STRUCTURE.
 FT SIGNAL 1 23
 FT CHAIN 24 99
 FT MOD_RES 24 24
 FT DISULFID 34 59
 FT DISULFID 35 75
 FT CARBOHYD 29 29
 FT CONFLICT 30 30
 FT CONFLICT 68 70
 SQ SEQUENCE 99 AA; 11200 MW; 7502E19C CRC32;

Query Match 97.9%; Score 92; DB 1; Length 99;
 Best Local Similarity 91.7%; Pred. No. 7.99e-09;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 73 EICADPTOKWQ 84
 1 EICADPTOKWQ 12

RESULT 2
 ID MCP1_CAVPO STANDARD; PRT: 120 AA.
 AC 008782;
 DT 01-NOV-1995 (REL. 32, CREATED)
 DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
 DE CHEMOTACTIC PROTEIN 1)
 UN SCV42 OR MCP1.
 OS CAVIA PORCELLUS (GUINEA PIG).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX STRAIN-2; TISSUE-SPLEEN;
 RX MEDLINE: 93267104.
 RA YOSHIMURA T.;
 RL J. IMMUNOL. 150:5025-5032(1993).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
 CC NEUTROPHILS.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL: I04985; G349821;
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KM CYTOKINE: CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
 FT SIGNAL 1 23
 FT CHAIN 24 120
 FT MOD_RES 24 24
 FT DISULFID 33 57
 FT DISULFID 34 73
 FT CARBOHYD 97 97
 SQ SEQUENCE 120 AA; 13741 MW; 22FAD257 CRC32;

Query Match 95.7%; Score 90; DB 1; Length 120;
 Best Local Similarity 83.3%; Pred. No. 2.52e-08;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 71 EICADPTOKWQ 82
 1 EICADPTOKWQ 12

RESULT 3
 ID MCP1_HUMAN STANDARD; PRT: 99 AA.
 AC P13500;
 DT 01-JAN-1990 (REL. 13, CREATED)
 DT 01-JAN-1990 (REL. 13, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE CHEMOTACTIC
 DE AND ACTIVATING FACTOR) (MCAF) (MONOCYTE SECRETORY PROTEIN J5)

||||| |||||
QY 1 EICADPSQKWQ 12

RESULT 4
ID MCP1 CANFA STANDARD; PRT; 101 AA.
AC P52203;
DT 01-OCT-1996 (REL. 34, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE CHEMOTACTIC PROTEIN-1).
GN SCYA2 OR MCP1.
OS CANIS FAMILIARIS (DOG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; CARNIVORA.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-JUGULAR VEIN ENDOTHELIAL;
RX MEDLINE: 97176620
RA KUMAR A.G., BALANTYNE C.M., MICHAEL L.H., KUKIELKA G.L., YOKER K.A., LINDEY M.L., HAWKINS H.K., BIRDSALL H.H., MACKAY C.R., LAROSA G.J., ROSSER R.D., SMITH C.W., ENTMAN M.L.;
RL CIRCULATION 95:693-700(1997).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT NEUTROPHILS. IMPORTANT FACTOR IN THE COURSE OF THE INFLAMMATORY REACTION TO REPERFUSION OF THE PREVIOUSLY ISCHEMIC MYOCARDIUM. MAY PLAY A SIGNIFICANT ROLE IN MONOCYTE TRAFFICKING INTO THE REPERFUSED MYOCARDIUM.
CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC -1- INDUCTION: BY TNF-ALPHA.
CC -1- TISSUE SPECIFICITY: ENDOTHELIUM OF SMALL VEINS AND INTRAPASCICULAR VEINS, AND INFILTRATING LEUCOCYTES.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
DR EMBL: U29653; G1144186; -
DR PROSITE: PS00472; SMALL CYTOKINES CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23 BY SIMILARITY.
FT CHAIN 24 101 MONOCYTE CHEMOTACTIC PROTEIN 1.
FT MOD.RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY SIMILARITY).
FT DISULFID 34 59 BY SIMILARITY.
FT DISULFID 35 75 BY SIMILARITY.
SQ SEQUENCE 101 AA; 11121 MW; A7075B14 CRC32;
Query Match 94.7%; Score 89; DB 1; Length 101;
Best Local Similarity 91.7%; Pred. No. 4,46e-08;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db 73 EICADPSQKWQ 84
QY 1 EICADPSQKWQ 12
RESULT 5
ID MCP1.PIG STANDARD; PRT; 99 AA.
AC P42831;
DT 01-NOV-1995 (REL. 32, CREATED)
DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
GN SCYA2.
OS SUS SCROFA (PIG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 94183284.
RA HOSANG K., KNOKE I., KLAUDINY J., WEMPE F., WUTTKE W., SCHEIT K.H.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 199:962-968(1994).
RN [2]
RP SEQUENCE FROM N.A.

RC TISSUE-BRAIN;
RA ZACH O.R.F.;
RL SUBMITTED (JUL-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT NEUTROPHILS.
CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
DR EMBL: 248479; G683717; -
DR EMBL: X79416; G872313; -
DR PROSITE: PS00472; SMALL CYTOKINES CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23 BY SIMILARITY.
FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 1.
FT MOD.RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY SIMILARITY).
FT DISULFID 34 59 BY SIMILARITY.
FT DISULFID 35 75 BY SIMILARITY.
SQ SEQUENCE 99 AA; 10976 MW; ECC3AFB4 CRC32;

Query Match 93.6%; Score 88; DB 1; Length 99;
Best Local Similarity 83.3%; Pred. No. 7.89e-08;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
Db 73 EICADPSQKWQ 84
QY 1 EICADPSQKWQ 12

RESULT 6
ID MCP2.PIG STANDARD; PRT; 99 AA.
AC P49873;
DT 01-OCT-1996 (REL. 34, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE CHEMOTACTIC PROTEIN 2).
GN SCYA8 OR MCP2.
OS SUS SCROFA (PIG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 95091716.
RA HOSANG K.K., KNOKE I.I., KLAUDINY J.J., WEMPE F.F., WUTTKE W.W., SCHEIT K.K.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 205:148-153(1994).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN CAN BIND HEPARIN.
CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
DR EMBL: 248480; G683719; -
DR PROSITE: PS00472; SMALL CYTOKINES CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23 BY SIMILARITY.
FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 2.
FT MOD.RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY SIMILARITY).
FT DISULFID 34 59 BY SIMILARITY.
FT DISULFID 35 75 BY SIMILARITY.
SQ SEQUENCE 99 AA; 10903 MW; B7620BCF CRC32;
Query Match 91.5%; Score 86; DB 1; Length 99;
Best Local Similarity 83.3%; Pred. No. 2,44e-07;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
Db 73 EICADPSQKWQ 84
QY 1 EICADPSQKWQ 12
RESULT 7

ID MCP2_BOVIN STANDARD: PRT: 99 AA.
 AC 009141;
 DT 01-NOV-1995 (REL. 32, CREATED)
 DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
 DE CHEMOTACTIC PROTEIN 2).
 CN SC1A8 OR MCP2.
 OS BOS TAURUS (BOVINE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 94114084.
 RA WEMPE F., HANES J., SCHEIT K.H.;
 RL DNA CELL BIOL. 13:1-8(1994).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN
 CC CAN BIND HEPARIN.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER. IN EQUILIBRIUM (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL: S67954; E118856; -;
 DR EMBL: S67956; G544997; -;
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.
 FT SIGNAL 1 23 BY SIMILARITY.
 FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 2.
 FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY
 FT SIMILARITY).
 FT DISULFID 34 59 BY SIMILARITY.
 FT DISULFID 35 75 BY SIMILARITY.
 SO SEQUENCE 99 AA; 10900 MW; 9BA2CD26 CRC32;
 Db 73 DVCADPKKQWQ 84
 Qy 1 EICADPSOKWQ 12
 RESULT 8
 ID MCP4_HUMAN STANDARD: PRT: 98 AA.
 AC Q99616;
 DT 15-JUL-1998 (REL. 36, CREATED)
 DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 4 PRECURSOR (MCP-4) (MONOCYTE
 DE CHEMOTACTIC PROTEIN 4) (CK-BETA10) (MCC-1).
 GN SCY13 OR MCP4 OR NCC1.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX TISSUE=HEART;
 RX MEDLINE: 97113354.
 RA GARCIA-ZEVEDA E.A., COMBADIERE C., ROTHENBERG M.E., SARATI M.N.,
 RA LAVIGNE F., HAMID O., MURPHY P.M., LUSTER A.D.;
 RL J. IMMUNOL. 157:5613-5626(1996).
 RN [2]
 RP SEQUENCE FROM N.A., AND SEQUENCE OF 17-98.
 RC TISSUE=FETAL;
 RX MEDLINE: 96235049.
 RA UGCCIONI M., LOETSCHER P., FORSSMANN U., DEMALD B., LI H., LIMA S.H.,
 RA LI Y., KREIDER B., GAROTTA G., THELEN M., BAGGIOLINI M.;
 RL J. EXP. MED. 183:2379-2384(1996).
 RN [3]
 RP SEQUENCE FROM N.A., AND SEQUENCE OF 22-33.
 RC TISSUE=FETAL;
 RX MEDLINE: 97341179.
 RA BEKHOUT T.A., SARAU H.M., MOORES K., WHITE J.R., ELSHOUBAGY N.,

RA APPELBAUM E., REAPE T.J., BRANNER M., MAKANA J., FOLEY J.J.,
 RA SCHMIDT D.B., IMBURGIA C., MACINDULTY D., MATTHEWS J., O'DONNELL K.,
 RA O'SHANNESSEY D., SCOTT M., GROOT P.H.E., MCPHEE C.;
 RL J. BIOL. CHEM. 272:16404-16413(1997).
 RN [4]
 RP SEQUENCE FROM N.A.
 RA DANTE M., GIBSON A.;
 RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCYTES,
 CC BASOPHILS AND EOSINOPHILS, BUT NOT NEUTROPHILS. SIGNALS THROUGH
 CC CCR2B AND CCR3 RECEPTORS. PLAYS A ROLE IN THE ACCUMULATION OF
 CC LEUKOCYTES AT BOTH SIDES OF ALLERGIC AND NONALLERGIC INFLAMMATION.
 CC MAY BE INVOLVED IN THE RECRUITMENT OF MONOCYTES INTO THE ARTERIAL
 CC WALL DURING THE DISEASE PROCESS OF ARTERIOSCLEROSIS. MAY PLAY A
 CC ROLE IN THE MONOCYTE ATTRACTION IN TISSUES CHRONICALLY EXPOSED TO
 CC EXOGENOUS PATHOGENS.
 CC -1- MASS SPECTROMETRY: MW-9314; MW_ERR-30; METHOD=MALDI; RANGE=17-98.
 CC -1- MASS SPECTROMETRY: MW-8760; MW_ERR-30; METHOD=MALDI; RANGE=22-98.
 CC -1- MASS SPECTROMETRY: MW-8575; MW_ERR-30; METHOD=MALDI; RANGE=24-98.
 CC -1- INDUCTION: BY INTERLEUKIN-1 AND TNF-ALPHA.
 CC -1- TISSUE SPECIFICITY: WIDELY EXPRESSED. FOUND IN SMALL INTESTINE,
 CC THYMUS, COLON, LUNG, TRACHEA, STOMACH AND LYMPH NODE. LOW LEVELS
 CC SEEN IN THE PULMONARY ARTERY SMOOTH MUSCLE CELLS.
 CC -1- THIS PROTEIN CAN BIND HEPARIN.
 CC -1- PTM: ONE MAJOR ISOFORM MCP-4, AND TWO MINOR ISOFORMS (LA)MCP-4 AND
 CC (FNPGLA)MCP-4 ARE PRODUCED BY DIFFERENTIAL SIGNAL CLEAVAGE.
 CC (LA)MCP-4 IS ABOUT 30 FOLD LESS ACTIVE THAN MCP-4.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL: U46767; G1732123; -;
 DR EMBL: AC002462; G2340091; -;
 DR MIM: 601391; -;
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; SIGNAL; GLYCOPROTEIN; INFLAMMATORY RESPONSE.
 FT SIGNAL 1 23
 FT CHAIN 24 98 MONOCYTE CHEMOTACTIC PROTEIN 4.
 FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID.
 FT DISULFID 34 58 BY SIMILARITY.
 FT DISULFID 35 74 BY SIMILARITY.
 FT CARBOHYD 29 29 POTENTIAL.
 SO SEQUENCE 98 AA; 10986 MW; DF52F6EC CRC32;
 Db 72 EICADPKKQWQ 83
 Qy 1 EICADPSOKWQ 12
 RESULT 9
 ID MCP4_BOVIN STANDARD: PRT: 99 AA.
 AC P28291;
 DT 01-DEC-1992 (REL. 24, CREATED)
 DT 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
 DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1A PRECURSOR (MCP-1A) (ACIDIC
 DE SEMINAL FLUID PROTEIN).
 OS BOS TAURUS (BOVINE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE=SEMINAL PLASMA;
 RX MEDLINE: 92096117.
 RA WEMPE F., HENSCHEN A., SCHEIT K.H.;
 RL DNA CELL BIOL. 10:671-679(1991).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC TISSUE=SEMINAL PLASMA;
 RX MEDLINE: 92181448.
 RA WEMPE F., EINSPANIER R., SCHEIT K.H.;

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RL BIOCHEM. BIOPHYS. RES. COMMUN. 183:232-237(1992).
RN [3]
RP SEQUENCE FROM N.A.
RX MEDLINE: 94338337.
RA WEMPE F., KUHLMANN J.K., SCHEIT K.H.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 202:1272-1279(1994).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: L32659; G624394; -.
DR EMBL: M84602; G163395; -.
DR PIR: A39296; A39296.
DR PIR: JC2336; JC2336.
DR HSSP: P13500; IMCA.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
DR CYTOKINE: CHEMOTAXIS; SIGNAL.
FT SIGNAL 1 23 BY SIMILARITY.
FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 1A.
FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY
FT DISULFID 34 59 SIMILARITY).
FT DISULFID 35 75 BY SIMILARITY.
FT DISULFID 35 75 BY SIMILARITY.
SO SEQUENCE 99 AA; 11114 MW; C8F5821D CRC32;

Query Match 89.4%; Score 84; DB 1; Length 99;
Best Local Similarity 83.3%; Pred. No. 7.51e-07;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 73 ELCDAPKQKRWQ 84
1:|||||
1 EICADPSQKRWQ 12

RESULT 10
ID MCP1_RABIT STANDARD; PRT; 125 AA.
AC P28292;
DT 01-DEC-1992 (REL. 24, CREATED)
DT 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
GN SCY1.
OS ORYCTOLAGUS CUNICULUS (RABBIT).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; LAGOMORPHA.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-NEW ZEALAND WHITE; TISSUE=SPLEEN;
RX MEDLINE: 91225489.
RA YOSHIMURA T., YUHKI N.;
RL J. IMMUNOL. 146:3483-3488(1991).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS.
CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: M57440; G165470; -.
DR HSSP: P13500; IMCA.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
DR CYTOKINE: CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
FT SIGNAL 1 23 BY SIMILARITY.
FT CHAIN 24 125 MONOCYTE CHEMOTACTIC PROTEIN 1.
FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY
FT DISULFID 34 59 SIMILARITY).
FT DISULFID 35 75 BY SIMILARITY.
FT CARBOHYD 40 40 POTENTIAL.
FT CARBOHYD 55 55 POTENTIAL.
FT CARBOHYD 112 112 POTENTIAL.
SO SEQUENCE 125 AA; 13776 MW; FBACGD27 CRC32;

Query Match 88.3%; Score 83; DB 1; Length 125;
Best Local Similarity 90.9%; Pred. No. 1.31e-06;

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Matches 10; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 74 ICADPKKRWQ 84
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2 ICADPSQKRWQ 12

RESULT 11
ID EOTA_MOUSE STANDARD; PRT; 97 AA.
AC P48298;
DT 01-FEB-1996 (REL. 33, CREATED)
DT 01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
GN SCY1.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=LUNG.
RX MEDLINE: 96004658.
RA ROTHENBERG M.E., LUSTER A.D., LEDER P.;
RL PROC. NATL. ACAD. SCI. U.S.A. 92:8960-8964(1995).
RN [2]
RP SEQUENCE FROM N.A.
RC STRAIN-C57BL/6J; TISSUE=LUNG;
RX MEDLINE: 96158746.
RA GONZALO J.-A., JIA G.-Q., AGUIRRE V., FRIEND D., COYLE A.J.,
RA JENKINS N.A., LIN G.-S., KATZ H., LICHTMAN A., COPELAND N.G., KOPE M.,
RA GUTIERREZ-RAMOS J.-C.;
RL IMMUNITY 4:1-14(1996).
CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
CC DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS (A PROMINENT
CC FEATURE OF ALLERGIC INFLAMMATORY REACTIONS), BUT NOT
CC LYMPHOCYTES, MACROPHAGES OR NEUTROPHILS.
CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
CC -1- TISSUE SPECIFICITY: EXPRESSED CONSTITUTIVELY IN THE THYMUS.
CC EXPRESSION INDUCIBLE IN THE LUNG (TYPE I ALVEOLAR EPITHELIAL
CC CELLS), INTESTINE, HEART, SPLEEN, KIDNEY.
CC -1- INDUCTION: BY INTERFERON-GAMMA AND LIPOPOLYSACCHARIDE (LPS).
CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: U26426; G995911; -.
DR EMBL: U40672; G113937; -.
DR MGD: MG1:103576; SCY1.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
DR EOSINOPHIL; CYTOKINE: CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
KW INFLAMMATORY RESPONSE.
FT SIGNAL 1 23 POTENTIAL.
FT CHAIN 24 97 EOTAXIN.
FT DISULFID 32 57 BY SIMILARITY.
FT DISULFID 33 73 BY SIMILARITY.
SO SEQUENCE 97 AA; 10893 MW; F85A96BC CRC32;

Query Match 87.2%; Score 82; DB 1; Length 97;
Best Local Similarity 83.3%; Pred. No. 2.28e-06;
Matches 10; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Db 71 EICADPKKRWQ 82
|||||
1 EICADPSQKRWQ 12

RESULT 12
ID EOTA_RAT STANDARD; PRT; 97 AA.
AC P97545; 008780;
DT 15-JUL-1998 (REL. 36, CREATED)
DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
OS RATIUS NORVEGICUS (RAT).

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OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ROBERTIA.
RN [1]
RN SEQUENCE FROM N.A.
RA WILLIAMS C.M., NEWTON D.J., WILSON S.A., COLEMAN J.C.,
RA WILLIAMS B.F.;
RA NAGANAGAN B.F.;
RL SUBMITTED (DEC-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RN SEQUENCE FROM N.A.
RN TISSUE-LUNG;
RA ISHII Y.;
RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
CC DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
CC FEATURE OF ALLERGIC INFLAMMATORY REACTIONS (BY SIMILARITY).
CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
CC -1- PFM: O-GLYCOSYLATED (PROBABLE).
CC -1- SIMILARITY: BELONGS TO THE INTERCINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
CC EMBL: Y08358; E274141; -.
DR EMBL: Y08358; E274141; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
KW INFLAMMATORY RESPONSE.
FT SIGNAL 1 23 POTENTIAL.
FT CHAIN 24 97 EOTAXIN.
FT DISULFID 32 57 BY SIMILARITY.
FT DISULFID 33 73 BY SIMILARITY.
FT CARBOHYD 94 94 POTENTIAL.
FT CONFLICT 3 3 L->S (IN REF. 2).
SQ SEQUENCE 97 AA; 10851 MW; 0584ED45 CRC32;

Query Match 87.2%; Score 82; DB 1; Length 97;
Best Local Similarity 83.3%; Pred. No. 2,28e-06;
Matches 10; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Db 71 EICADPKKKWQ 82
QY 1 EICADPSQKRWQ 12
IIIIIIIIII

RESULT 13
ID MIP4_HUMAN STANDARD; PRT; 89 AA.
AC P55774;
DT 01-NOV-1997 (REL. 35, CREATED)
DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MACROPHAGE INFLAMMATORY PROTEIN 4 PRECURSOR (MIP-4) (PULMONARY AND
DE ACTIVATION-REGULATED CHEMOKINE) (CC CHEMOKINE PARC) (ALTERNATIVE
DE SCA18 OR MIP4.
GN HOMO SAPIENS (HUMAN).
OS EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RN SEQUENCE FROM N.A.
RN LI H., RUBEN S.;
RN PATENT NUMBER US5504003.
RN [2]
RN SEQUENCE FROM N.A., AND PARTIAL SEQUENCE.
RP TISSUE-AORTA, AND LONG;
RX MEDLINE: 97376836.
RA HISHIMA K., IMAI T., BABA M., SHOUDAI K., ISHIZUKA K.,
RA NAKAGAWA T., TSURUTA J., TAKEYA M., SAKAKI Y., TAKATSUKI K.,
RA MIRA R., OPDENAKKER G., VAN DAMME J., YOSHIE O., NOMIYAMA H.;
RL J. IMMUNOL. 159:1140-1149(1997).
RN [3]
RN SEQUENCE FROM N.A.
RA KODJELA V., MUELLER C., POLITZ O., HAKIY N., OREANOS C.E., GOERDT S.;
RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [4]
RN DISCUSSION OF SEQUENCE.
RX MEDLINE: 97275308.

RA WELLS T.N.C., PETTSCH M.C.;
RL J. LEUKOC. BIOL. 61:545-550(1997).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS LYMPHOCYTES BUT NOT
CC MONOCYTES OR GRANULOCYTES. MAY BE INVOLVED IN B CELL MIGRATION
CC INTO B CELL FOLLICLES IN LYMPH NODES.
CC -1- TISSUE SPECIFICITY: EXPRESSED AT HIGH LEVELS IN THE LUNG. A LOWER
CC LEVEL EXPRESSION IS SEEN IN LYMPHOID TISSUES SUCH AS LYMPH NODES,
CC THYMUS AND APPENDIX.
CC -1- INDUCTION: BY LIPOPOLYSACCHARIDE (LPS).
CC -1- SIMILARITY: BELONGS TO THE INTERCINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
CC EMBL: AB000221; D1032520; -.
DR EMBL: Y13710; E321838; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 20
FT CHAIN 21 89 MACROPHAGE INFLAMMATORY PROTEIN 4.
FT DISULFID 30 54 BY SIMILARITY.
FT DISULFID 31 70 BY SIMILARITY.
SQ SEQUENCE 89 AA; 9849 MW; 052AA3DC CRC32;

Query Match 86.2%; Score 81; DB 1; Length 89;
Best Local Similarity 75.0%; Pred. No. 3,96e-06;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 68 QICADPKKKWQ 79
QY 1 EICADPSQKRWQ 12
:IIIIIIIIII

RESULT 14
ID EOTA_HUMAN STANDARD; PRT; 97 AA.
AC P51671; P50877; Q92490; Q92491;
DT 01-OCT-1996 (REL. 34, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
GN SCA11.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RN SEQUENCE FROM N.A.
RX MEDLINE: 96181758.
RA GARCIA-ZEPEDA E.A., ROTHENBERG M.E., OWNEY T.R., LEDER P.,
RA LUSTER A.D.;
RL NAT. MED. 2:449-456(1996).
RN [2]
RN SEQUENCE FROM N.A.
RX MEDLINE: 96189937.
RA PONATH P.D., QIN S., RINGLER D.J., CLARK-LEWIS I., WANG J., KASSAM N.,
RA SMITH H., SHI X., GONZALO J.A., NEWMAN W., GUTIERREZ-RAMOS J.C.,
RA MACRAY C.R.;
RL J. CLIN. INVEST. 97:604-612(1996).
RN [3]
RN SEQUENCE FROM N.A.
RP TISSUE-SMALL INTESTINE;
RX MEDLINE: 96205964.
RA KITAHARA M., NAKAJIMA T., IMAI T., HARADA S., COMBADIERE C.,
RA TIFPANY H.L., MURPHY P.M., YOSHIE O.;
RL J. BIOL. CHEM. 271:7725-7730(1996).
RN [4]
RN SEQUENCE FROM N.A., SEQUENCE OF 60-65 AND 75-88, AND VARIANTS.
RP TISSUE-FORESKIN;
RX MEDLINE: 96374440.
RA BARRELS J., SCHLUETER C., RICHTER E., NOSO N., KULKE R.,
RA CHRISTOPHERS E., SCHROEDER J.M.;
RL BIOCHEM. BIOPHYS. RES. COMMON. 225:1045-1051(1996).
RN [5]
RN SEQUENCE FROM N.A.
RP TISSUE-PLACENTA;
RX MEDLINE: 97312708.
RA GARCIA-ZEPEDA E.A., ROTHENBERG M.E., WEREMOWICZ S., SARATI M.N.,

RA MORTON C. C., LUSTER A. D.;
 RL GENOMICS 41:471-476(1997).
 RN [6]
 RP SEQUENCE FROM N.A.
 RC TISSUE=LUNG;
 RX MEDLINE: 97445071.
 RA HEIN H., SCHUEFER C., KULKE R., CHRISTOPHERS E., SCHROEDER J.M.,
 RA BARTIS J.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 237:537-542(1997).
 CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
 CC DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
 CC FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.
 CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
 CC -1- PPM: O-GLYCOSYLATED (PROBABLE).
 CC -1- INDUCTION: BY TNF-ALPHA, IL-1-ALPHA AND INTERFERON GAMMA.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL: U46573; G1280141; -;
 DR EMBL: U34780; G1185440; -;
 DR EMBL: D49372; G1552241; -;
 DR EMBL: Z62291; E221070; -;
 DR EMBL: Z75668; E251275; -;
 DR EMBL: Z75669; E251258; -;
 DR EMBL: U46572; G2088509; -;
 DR EMBL: Z92709; E329504; -;
 DR MIM: 601156; -;
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1
 KW EOSINOPHIL; CYTOKINE; CHEMOKINES; GLYCOPROTEIN; SIGNAL;
 KW INFLAMMATORY RESPONSE; POLYMORPHISM.
 FT SIGNAL 1 23
 FT CHAIN 24 97
 FT DISULFID 32 57
 FT DISULFID 33 73
 FT VARIANT 7 7
 FT VARIANT 23 23
 FT VARIANT 51 51
 FT VARIANT 79 79
 FT SEQUENCE 97 AA; 10732 MW; 6C0F3D98 CRC32;
 SO
 Query Match 86.2%; Score 81; DB 1; Length 97;
 Best Local Similarity 75.0%; Pred. No. 3.96e-06;
 Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;
 Db 71 DICADPKKKWV 82
 QY 1 EICADPSQKWV 12
 RESULT 15
 ID MCP5 MOUSE STANDARD; PRT: 104 AA.
 AC 062401;
 DT 01-NOV-1997 (REL. 35, CREATED)
 DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 5 PRECURSOR (MCP-5) (MCP-1 RELATED
 DE CHEMOKINE).
 DE SCYAL2 OR MCP5.
 US MUS MUSCULUS (MOUSE).
 OC EURAROTIA; METAOGA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 97079149.
 RA JIA G.-Q., GONZALO J.A., LLOYD C., KREMER L., LU L., MARTINEZ A.C.,
 RA WERSHIL B.K., GUTIERREZ-RAMOS J.C.;
 RL J. EXP. MED. 184:1939-1951(1996).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 97149438.
 RA SARAFTI M.N., GARCIA-ZEPEDA E.A., MACLEAN J.A., CHARO I.F.,
 RA LUSTER A.D.;
 RL J. EXP. MED. 185:99-109(1997).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS EOSINOPHILS, MONOCYTES,

CC AND LYMPHOCYTES BUT NOT NEUTROPHILS. POTENT MONOCYTE ACTIVE
 CC CHEMOKINE THAT SIGNALS THROUGH CCR2. INVOLVED IN ALLERGIC
 CC INFLAMMATION AND THE HOST RESPONSE TO PATHOGENS AND MAY PLAY A
 CC PIVOTAL ROLE DURING EARLY STAGES OF ALLERGIC LUNG INFLAMMATION.
 CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
 CC -1- TISSUE SPECIFICITY: PREDOMINANTLY EXPRESSED IN THE LYMPH NODES AND
 CC THYMUS. ALSO FOUND IN THE SALIVARY GLANDS CONTAINING LYMPH NODES,
 CC BREAST, HEART, LUNG, BRAIN, SMALL INTESTINE, KIDNEY AND COLON.
 CC -1- INDUCTION: BY IFN-GAMMA AND LIPOPOLYSACCHARIDE (LPS).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL: U50712; G1477582; -;
 DR EMBL: U66670; G1881583; -;
 DR MGD; MGI:108224; SCYAL2.
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1
 KW CYTOKINE; CHEMOKINES; SIGNAL; INFLAMMATORY RESPONSE.
 FT SIGNAL 1 22
 FT CHAIN 23 104
 FT DISULFID 33 58
 FT DISULFID 34 74
 FT SEQUENCE 104 AA; 11659 MW; 08FAC35 CRC32;
 SO
 Query Match 83.0%; Score 78; DB 1; Length 104;
 Best Local Similarity 81.8%; Pred. No. 2.04e-05;
 Matches 9; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
 Db 72 EICADPKKKWV 82
 QY 1 EICADPSQKWV 11
 RESULT 16
 ID M1A_HUMAN STANDARD; PRT: 92 AA.
 AC P10147;
 DT 01-MAR-1989 (REL. 10, CREATED)
 DT 01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE)
 DT 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
 DE MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR (MIP-1-ALPHA)
 DE (TONSILLAR LYMPHOCYTE LDB8 ALPHA PROTEIN) (G0S19-1 PROTEIN) (SIS-BETA)
 DE (PAT 464.1) (SMALL INDUCIBLE CYTOKINE A3).
 DE HOMO SAPIENS (HUMAN).
 OS CYA3 OR MIP1A.
 GN HOMO SAPIENS (HUMAN).
 OC EURAROTIA; METAOGA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 86223879.
 RA OBARU K., FUKUDA M., MAEDA S., SHIMADA K.;
 RL J. BIOCHEM. 99:885-894(1986).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 89140347.
 RA ZIPPEL P.F., BALKE J., IRVING S.G., KELLY K., SIEBENLIST U.;
 RL J. IMMUNOL. 142:1582-1590(1989).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 91103879.
 RA BLOM S., FORSDYKE R.E., FORSDYKE D.R.;
 RL DNA CELL BIOL. 9:589-602(1990).
 RN [4]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 90287155.
 RA NAKAO M., NOMIYAMA H., SHIMADA K.;
 RL MOL. CELL. BIOL. 10:3646-3658(1990).
 CC -1- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.
 CC -1- INDUCTION: BY TPA OR PHA (TPA = 12-O-TETRADECANOYL PHORBOL-13
 CC ACETATE (TUMOR PROMOTER); PHA = PHYTOHEMAGGLUTININ (T-CELL
 CC MITOGEN)).
 CC -1- SIMILARITY: LD78-ALPHA AND -BETA ARE VERY CLOSELY RELATED.
 CC C-C) (CHEMOKINE CC).
 DR EMBL: D00044; D1000469; -;
 DR EMBL: M23452; G188559; -;

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DR EMBL: M25315; G602453; -.
DR EMBL: X03754; G758089; -.
DR EMBL: X04018; G34287; ALT_SEQ.
DR EMBL: M23178; G182847; -.
DR EMBL: D90144; G219906; -.
DR PIR: A24198; A24198.
DR PIR: A30574; A30574.
DR HSSP: P13236; IHUM.
DR MIM: 182283; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 22 POTENTIAL.
FT CHAIN 23 92 MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA.
FT DISULFID 33 57 BY SIMILARITY.
FT DISULFID 34 73 BY SIMILARITY.
SQ SEQUENCE 92 AA; 10085 MW; C24DD919 CRC32;

Query Match 81.9%; Score 77; DB 1; Length 92;
Best Local Similarity 66.7%; Pred. No. 3.51e-05;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 71 QVCADPSESQWQ 82
QY 1 EICADPSESQWQ 12

RESULT 17
ID M1B_HUMAN STANDARD; PRT; 92 AA.
AC P13236; P22617; Q13704;
S 01-JAN-1990 (REL. 13, CREATED)
DT 01-JAN-1990 (REL. 13, LAST ANNOTATION UPDATE)
DE MACROPHAGE INFLAMMATORY PROTEIN 1-BETA PRECURSOR (MIP-1-BETA) (T-CELL
DE ACTIVATION GENE-1 PROTEIN) (LAG-2) (H400) (SIS-GAMMA) (LYMPHOCYTE
DE A4) (G-26 T LYMPHOCYTE-SECRETED PROTEIN).
GN SCYA4 OR MIP1B OR LAG1.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 89071764.
RA LIPES M.A., NAPOLITANO M., JEANG K.-T., CHANG N.T., LEONARD W.J.;
RL PROC. NATL. ACADE. SCI. U.S.A. 85:9704-9708(1988).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 89140347.
RA ZIPPEL P.F., BAILE J., IRYING S.G., KELLY K., SIEBENLIST U.;
RL J. IMMUNOL. 142:1582-1590(1989).
RN [3]
RP SEQUENCE FROM N.A.
RX MEDLINE: 89093958.
RA BROWN K.D., ZURAWSKI S.M., MOSMANN T.R., ZURAWSKI G.;
RL J. IMMUNOL. 142:679-687(1989).
RN [4]
RP SEQUENCE FROM N.A.
RX MEDLINE: 91061800.
RA BAIXERAS E., ROMAN-ROMAN S., JITSUKAWA S., GENEVEE C., MECCHICHE S.,
RA VIEGAS-PRIGUONOT E., HERCEND T., TRIEBEL F.;
RL MOL. IMMUNOL. 27:1091-1102(1990).
RN [5]
RP SEQUENCE FROM N.A.
RX MEDLINE: 89325421.
RA CHANG H.C., REINHERR E.L.;
RL EUR. J. IMMUNOL. 19:1045-1051(1989).
RN [6]
RP SEQUENCE FROM N.A.
RX MEDLINE: 91373378.
RA NAOLITANO M., MODI W.S., CEVARIO S.J., GNARRA J.R., SEUANEZ H.N.,
RA LEONARD W.J.;
RL J. BIOL. CHEM. 266:17531-17536(1991).

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RN [7]
RP SEQUENCE OF 6-92 FROM N.A.
RX MEDLINE: 90038522.
RA MILLER M.D., HATA S., WAAL MALEFYT R., KRANGEL M.S.;
RL J. IMMUNOL. 143:2907-2916(1989).
RN [8]
RP STRUCTURE BY NMR.
RX MEDLINE: 94182137.
RA LODI P.J., GARRETT D.S., KUSCEWSKI J., TSANG M.L.S., WEATHERBEE J.A.,
RA LEONARD W.J., GRONENBORN A.M., CLORE G.M.;
RL SCIENCE 263:1762-1767(1994).
CC -1- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.
CC -1- SUBUNIT: HOMODIMER.
CC -1- INDUCTION: BY MITOGENS.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: M23502; G533213; -.
DR EMBL: M25316; G602455; -.
DR EMBL: J04130; G178018; -.
DR EMBL: X53683; G34218; -.
DR EMBL: X53682; E35870; ALT_SEQ.
DR EMBL: X16166; G32036; -.
DR EMBL: M69203; G1332376; -.
DR EMBL: M69201; G1332376; JOINED.
DR EMBL: M69202; G1332376; JOINED.
DR EMBL: M57503; G339727; -.
DR PIR: A31767; A31767.
DR PIR: B30574; B30574.
DR PIR: D30552; D30552.
DR PIR: JH0319; JH0319.
DR PIR: A37411; A37411.
DR PDB: 1HUM; 30-APR-94.
DR MIM: 182284; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL; 3D-STRUCTURE.
FT SIGNAL 1 23
FT CHAIN 24 92 MACROPHAGE INFLAMMATORY PROTEIN 1-BETA.
FT DISULFID 34 58 BY SIMILARITY.
FT DISULFID 35 74 BY SIMILARITY.
FT CONFLICT 6 6 T -> C (IN REF. 7).
FT CONFLICT 15 15 A -> S (IN REF. 6).
FT CONFLICT 20 20 P -> L (IN REF. 2).
FT CONFLICT 40 45 ARKLP -> REAS (IN REF. 3).
FT CONFLICT 56 56 S -> I (IN REF. 7).
FT CONFLICT 70 70 S -> G (IN REF. 6).
FT CONFLICT 80 80 S -> T (IN REF. 7).
FT STRAND 29 29
FT STRAND 33 33
FT HELIX 45 47
FT STRAND 50 53
FT STRAND 63 66
FT STRAND 72 75
FT TURN 77 78
FT HELIX 80 90
SQ SEQUENCE 92 AA; 10212 MW; F18E7AFD CRC32;

Query Match 81.9%; Score 77; DB 1; Length 92;
Best Local Similarity 66.7%; Pred. No. 3.51e-05;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 72 QVCADPSESQWQ 83
QY 1 EICADPSESQWQ 12

RESULT 18
ID M1B_HUMAN STANDARD; PRT; 93 AA.
AC P16619;
S 01-AUG-1990 (REL. 15, CREATED)
DT 01-AUG-1990 (REL. 15, LAST ANNOTATION UPDATE)
DE TONSILLAR LYMPHOCYTE LD78 BETA PROTEIN PRECURSOR (GOS19-2 PROTEIN)

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DE (PAT 464.2).
GN SCYAL1 OR 464.2.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-BLOOD;
RX MEDLINE: 90287702.
RA IRVING S.G., ZIPFEL P.F., BALKE J., MCBRIDE O.W., MORTON C.C.,
RA BURD P.R., SIEBENLIST U., KELLY K.;
RL NUCLEIC ACIDS RES. 18:3261-3270(1990).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 91103879.
PA BLUM S., FORSDYKE R.E., FORSDYKE D.R.;
RL DNA CELL BIOL. 9:589-602(1990).
RN [3]
RP SEQUENCE FROM N.A.
RX MEDLINE: 90287755.
RA NAKAO M., NOMITAMA H., SHIMADA K.;
RL MOL. CELL. BIOL. 10:3646-3658(1990).
CC -1- SIMILARITY: 464.1 AND 464.2 ARE VERY CLOSELY RELATED.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
CC EMBL: X52149; G296666; -;
DR EMBL: M24110; G182849; -;
DR EMBL: D90145; G219908; -;
DR PIR: B30908; B30908.
DR PIR: B30412; B30412.
DR PIR: B35673; B35673.
DR PIR: S10157; S10157.
DR HSSP: P13236; IHOM.
DR MIM: 601395; -;
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
DR CYTOKINE; CHEMOTAXIS; SIGNAL.
FT SIGNAL 1 23
FT CHAIN 24 93 LD78 BETA / GOS19-2 / 464.2.
FT DISULFID 34 58 BY SIMILARITY.
FT DISULFID 35 74 BY SIMILARITY.
SQ SEQUENCE 93 AA; 10161 MW; 21EDB04 CRC32;
Query Match 81.9%; Score 77; DB 1; Length 93;
Best Local Similarity 66.7%; Pred. No. 3.51e-05;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;
Db 72 QVCADPSEEWQ 83
QY 1 EICADPSQKWQ 12
RESULT 19 STANDARD; PRT; 96 AA.
AC P80325;
DT 01-JUN-1994 (REL. 29, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
GN SCYAL1.
OS CAVIA PORCELLUS (GUINEA PIG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-LUNG;
RX MEDLINE: 95173589.
RA ROTHENBERG M.E., LUSTER A.D., LILLY C.M., DRAZEN J.M., LEDER P.;
RL J. EXP. MED. 181:1211-1216(1995).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 95091818.
RA JOSE P.J., ADCOCK I.M., GRIFFITHS-JOHNSON D.A., BERKMAN N.,
RA WELLS T.C., WILLIAMS T.J., POWER C.A.;

RL BIOCHEM. BIOPHYS. RES. COMMUN. 205:788-794(1994).
RN [3]
RP SEQUENCE OF 24-96.
RC STRAIN-HARTLEY; TISSUE-LUNG;
RX MEDLINE: 94157409.
RA JOSE P.J., GRIFFITHS-JOHNSON D.A., COLLINS P.D., WALSH D.T.,
RA MOEBEL R., TOTTY N.F., TRUONG O., HSUAN J.J., WILLIAMS T.J.;
RL J. EXP. MED. 179:881-887(1994).
CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
CC DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
CC FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.
CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
CC -1- TISSUE SPECIFICITY: LUNG.
CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
CC EMBL: U18941; G687656; -;
DR EMBL: X77603; G602552; -;
DR HSSP: P13500; IMCA.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
DR EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
KW INFLAMMATORY RESPONSE.
FT SIGNAL 1 23
FT CHAIN 24 96 EOTAXIN.
FT DISULFID 31 56 BY SIMILARITY.
FT DISULFID 32 72 BY SIMILARITY.
FT CARBOHYD 93 93 POTENTIAL.
FT CONFLICT 88 88 D -> G (IN REF. 2).
SQ SEQUENCE 96 AA; 10753 MW; DD28C7E5 CRC32;
Query Match 80.9%; Score 76; DB 1; Length 96;
Best Local Similarity 81.8%; Pred. No. 6.01e-05;
Matches 9; Conservative 0; Mismatches 2; Indels 0; Gaps 0;
Db 71 ICADPKKKWQ 81
QY 2 ICADPSQKWQ 12
RESULT 20 STANDARD; PRT; 101 AA.
ID IL8_SHEEP
AC P36925;
DT 01-JUN-1994 (REL. 29, CREATED)
DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8).
GN IL8.
OS OVIS ARIES (SHEEP).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 95121931.
RA LEGASTELOIS I., GREENLAND T., ARNAUD P., MORENEX J.F., CORDIER G.;
RL GENE 150:367-369(1994).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 95137691.
RA SEOW H.F., YOSHIMURA T., WOOD P.R., COLDITZ I.G.;
RL IMMUNOL. CELL BIOL. 72:398-405(1994).
CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
CC BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
CC RESPONSE TO AN INFLAMMATORY STIMULUS.
CC -1- SUBUNIT: HOMODIMER.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
C-X-C) (CHEMOKINE CX-C).
CC EMBL: X78306; G463234; -;
DR EMBL: S74436; G786591; -;
DR PIR: S42496; S42496.
DR HSSP: P10145; 3IL8.
DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.

FT SIGNAL 1 22 BY SIMILARITY.
FT CHAIN 23 101 INTERLEUKIN-8.
FT DISULFID 34 61 BY SIMILARITY.
FT DISULFID 36 77 BY SIMILARITY.
SQ SEQUENCE 101 AA; 11292 MW; 5A574527 CRC32;
Query Match 80.9%; Score 76; DB 1; Length 101;
Best Local Similarity 66.7%; Ptd. No. 6.01e-05;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
Db 75 EYCLDPKRWQ 86
QY 1 EICADPSQKWQ 12

RESULT 21
ID IL8_CANFA STANDARD; PRT; 101 AA.
AC P41324;
DT 01-FEB-1995 (REL. 31, CREATED)
DT 01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8).
GN IL8.
OS CANIS FAMILIARIS (DOG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; CARNIVORA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE; 94010328.
RA ISHIKAWA J., SUZUKI S., HOTTA K., HIROTA Y., MIZUNO S., SUZUKI K.;
RN GENE 131:305-306(1993).
[2]
RP SEQUENCE FROM N.A.
RC TISSUE-LYMPH NODE;
RX MEDLINE; 95127913.
RA MATSUMOTO Y., MOHAMED A., ONODERA T., KATO H., OHASHI T.,
RA ISHIKAWA J., HOTTA K., SUZUKI K., HIROTA Y.;
RN CYTOKINE 6:455-461(1994).
[3]
RP SEQUENCE FROM N.A.
RC STRAIN-MONGREL; TISSUE-JUGULAR VEIN;
RX MEDLINE; 95114148.
RA KUKIELA G.L., SMITH W.C., LAROSA G.J., MANNING A.M.,
RA MENOZA L.H., DALY T.J., HUGHES B.J., YOKER K.A., HAWKINS H.K.,
RA MICHAEL L.H., ROT A., ENTMAN M.L.;
RN J. CLIN. INVEST. 95:89-103(1994).
[4]
CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
RESPONSE TO AN INFLAMMATORY STIMULUS.
CC -1- SUBUNIT: HOMODIMER.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
C-X-C) (CHEMOKINE CXCL).
CC EMBL; D28772; G517100; -.
DR EMBL; D14283; G475152; -.
DR EMBL; U10308; G607814; -.
DR PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 22 BY SIMILARITY.
FT CHAIN 23 101 INTERLEUKIN-8.
FT DISULFID 34 61 BY SIMILARITY.
FT DISULFID 36 77 BY SIMILARITY.
SQ SEQUENCE 101 AA; 11280 MW; 7C49D63D CRC32;
Query Match 80.9%; Score 76; DB 1; Length 101;
Best Local Similarity 66.7%; Ptd. No. 6.01e-05;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
Db 75 EYCLDPKRWQ 86
QY 1 EICADPSQKWQ 12

RESULT 22
ID IL8_PIG STANDARD; PRT; 103 AA.
AC P26894; P22951;
DT 01-AUG-1991 (REL. 19, CREATED)
DT 01-AUG-1992 (REL. 23, LAST SEQUENCE UPDATE)
DT 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8) (ALVEOLAR MACROPHAGE CHEMOTACTIC FACTOR
DE I) (AMCF-I).
GN IL8.
OS SUS SCROFA (PIG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLIA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE; 94103307.
RA LIN G., PEARSON A.E., SCAMURRA R.W., ZHOU Y., BAARSCH M.J.,
RA WEISS D.J., MURTAUGH M.P.;
RN J. BIOL. CHEM. 269:77-85(1994).
[2]
RP SEQUENCE FROM N.A.
RN SUBMITTED (JUL-1991) TO EMBL/GENBANK/DBJ DATA BANKS.
[3]
RP SEQUENCE FROM N.A., AND SEQUENCE OF 26-45.
RC TISSUE-LUNG;
RX MEDLINE; 93041741.
RA GOODMAN R.B., FOSTER D.C., MATHEWS S.L., OSBORN S.G., KUIPERS J.L.,
RA FORSTROM J.W., MARTIN T.R.;
RN BIOCHEMISTRY 31:10483-10490(1992).
[4]
RP REVISION TO 23.
RA GOODMAN R.B.;
RN SUBMITTED (MAR-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
[5]
RP SEQUENCE OF 26-45.
RC STRAIN-YORKSHIRE;
RX MEDLINE; 91217086.
RA GOODMAN R.B., FORSTROM J.W., OSBORN S.G., CHI E.Y., MARTIN T.R.;
RN J. BIOL. CHEM. 266:8455-8463(1991).
[6]
CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
RESPONSE TO AN INFLAMMATORY STIMULUS.
CC -1- SUBUNIT: HOMODIMER.
CC -1- TISSUE SPECIFICITY: ALVEOLAR MACROPHAGES.
CC -1- INDUCTION: BY LIPOPOLYSACCHARIDE.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
C-X-C) (CHEMOKINE CXCL).
CC EMBL; M86923; G164521; -.
DR EMBL; X61151; G516197; -.
DR EMBL; M99367; G1235612; -.
DR PIR; A44253; A44253.
DR PIR; A39819; A39819.
DR HSP; P10145; 31L8.
DR PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 25
FT CHAIN 26 103 INTERLEUKIN-8.
FT DISULFID 34 61 BY SIMILARITY.
FT DISULFID 36 77 BY SIMILARITY.
FT DISULFID 33 34 BY SIMILARITY.
FT CONFLICT 87 87 RC -> CR (IN REF. 5).
SQ SEQUENCE 103 AA; 11633 MW; A012D59D CRC32;
Query Match 80.9%; Score 76; DB 1; Length 103;
Best Local Similarity 66.7%; Ptd. No. 6.01e-05;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
Db 75 EYCLDPKRWQ 86
QY 1 EICADPSQKWQ 12

RESULT 23
ID MCP1_RAT STANDARD: PRT: 148 AA.
AC P14844;
U: 01-APR-1990 (REL. 14, CREATED)
U: 01-APR-1990 (REL. 14, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (IMMEDIATE-EARLY
SERUM-RESPONSIVE JE PROTEIN).
GN SCY2 OR JE OR MCP1.
OS RATTUS NORVEGICUS (RAT).
OC EURAROTIA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
RN EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-WAG/RJ; TISSUE-KIDNEY;
RA MEDLINE: 90174947.
RA TIMERS H.T.H.M., PRONK G.J., BOS J.L., VAN DER EB A.J.;
RL NUCLEIC ACIDS RES. 18:23-34(1990).
RN [2]
RP SEQUENCE FROM N.A.
RA MEDLINE: 91128376.
RA YOSHIMURA T., TAKEYA M., TAKAHASHI K.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 174:504-509(1991).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
NEUTROPHILS.
CC -1- SUBUNIT: MONOMER OR HOMODIMER, IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
DR EMBL: X17053: G55531; -;
DR EMBL: M57441: G205334; -;
DR PIR: JN0128; JN0128.
DR PIR: S07723; S07723.
DR HSSP: P13500; IMCA.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
DR CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
FT SIGNAL 1 23 BY SIMILARITY.
FT CHAIN 24 148 MONOCYTE CHEMOTACTIC PROTEIN 1.
FT MOD_RES 24 24 PYROLIDONE CARBOXYLIC ACID (BY
SIMILARITY).
FT DISULFID 34 59 BY SIMILARITY.
FT DISULFID 35 75 BY SIMILARITY.
FT CARBOHYD 126 126 POTENTIAL.
SQ SEQUENCE 148 AA; 16460 MW; DB97F97C CRC32;

Query Match 80.9%; Score 76; DB 1; Length 148;
Best Local Similarity 75.0%; Pred. No. 6.01e-05;
Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 73 EICADPNKEWQ 84
|||||: |||
OY 1 EICADPSQKWQ 12

RESULT 24
ID M1A_RAT STANDARD: PRT: 92 AA.
AC P50229;
U: 01-OCT-1996 (REL. 34, CREATED)
U: 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR (MIP-1-ALPHA).
GN SCY43 OR MIP1A.
OS RATTUS NORVEGICUS (RAT).
OC EURAROTIA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
RN EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-CD-1; TISSUE-LUNG;
RA MEDLINE: 95298037.
RA SHI M.M., GODLESKI J.J., PAULUSKIS J.D.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 211:289-295(1995).
RN [2]
RP SEQUENCE FROM N.A.

RC STRAIN-LONG EVANS; TISSUE-LUNG;
RX MEDLINE: 95238980.
RA SHANLEY T.P., SCHMAL H., FRIEDL H.P., JONES M.L., WARD P.A.;
RL J. IMMUNOL. 154:4793-4802(1995).
RN [3]
RP SEQUENCE OF 24-57.
RC STRAIN-WISTAR.
RX MEDLINE: 96183056.
RA NAKAGAWA H., SHIOTA S., TAKANO K., SHIBATA F., KATO H.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 220:945-948(1996).
CC -1- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.
HAS CHEMOTACTIC ACTIVITY FOR MONOCYTES, NEUTROPHILS, EOSINOPHILS,
BASOPHILS, AND LYMPHOCYTES. REQUIRED FOR LUNG TNF-ALPHA
PRODUCTION, NEUTROPHIL RECRUITMENT AND SUBSEQUENT LUNG INJURY AND
MAY FUNCTION AS AN AUTOCRINE MEDIATOR FOR THE MACROPHAGE
PRODUCTION OF TNF-ALPHA WHICH IN TURN UP-REGULATES VASCULAR
ADHESION MOLECULES REQUIRED FOR NEUTROPHIL INFILUX. THIS PROTEIN
BINDS HEPARIN.
CC -1- INDUCTION: BY LIPOPOLYSACCHARIDE (LPS).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
DR EMBL: U2414; G790633; -;
DR EMBL: U06435; G459150; -;
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
RW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL; HEPARIN-BINDING.
FT SIGNAL 1 23
FT CHAIN 24 92 MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA.
FT DISULFID 34 57 BY SIMILARITY.
FT DISULFID 35 73 BY SIMILARITY.
FT CONFLICT 6 6 A -> T (IN REF. 2).
FT CONFLICT 57 57 C -> W (IN REF. 2 AND 3).
SQ SEQUENCE 92 AA; 10335 MW; F48CF89F CRC32;

Query Match 79.8%; Score 75; DB 1; Length 92;
Best Local Similarity 66.7%; Pred. No. 1.03e-04;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 71 QICADPKETWQ 82
|||||: |||
OY 1 EICADPSQKWQ 12

RESULT 25
ID CCC1_HUMAN STANDARD: PRT: 93 AA.
AC Q16627;
U: 01-NOV-1997 (REL. 35, CREATED)
U: 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE CHEMOKINE CC-1 PRECURSOR (HCC-1) (NCC-2).
GN SCY44 OR NCC2.
OS HOMO SAPIENS (HUMAN).
OC EURAROTIA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
RN EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A. AND SEQUENCE OF 20-93.
RC TISSUE-BONE MARROW;
RX MEDLINE: 9616773.
RA SCHULZ-KNAPPE P., MAEGERT H.-J., DEWALD B., MEYER M., CETIN Y.,
RA KUBIS M., TOMCZAKOWSKI J., KIRCHHOFF K., RAIDA M., ADELMANN K.,
RA KIST A., REINECKE M., SILLARD R., PARDIGOL A., UGUCCIONI M.,
RA BAGGIOLINI M., FORSMANN W.-G.;
RL J. EXP. MED. 183:295-299(1996).
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE-LIVER;
RA PARDIGOL A., MAEGERT H.-J., ZUCHT H.D., FORSMANN W.-G.,
RA SCHULZ-KNAPPE P.;
RL SUBMITTED (MAY-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [3]
RP SEQUENCE FROM N.A.
RC TISSUE-PLACENTA;
RA PARDIGOL A., MAEGERT H.-J., CIESLAK A., HILL O., SCHULZ-KNAPPE P.,
RA FORSMANN W.-G.;

RL SUBMITTED (OCT-1995) TO EMBL/GENBANK/DDJ DATA BANKS.
CC -1- FUNCTION: HAS WEAK ACTIVITIES ON HUMAN MONOCYTES AND ACTS VIA
CC RECEPTORS THAT ALSO RECOGNIZE MIP-1 ALPHA. IT INDUCED
CC INTRACELLULAR CA2+ CHANGES AND ENZYME RELEASE, BUT NO CHEMOTAXIS,
CC AT CONCENTRATIONS OF 100-1,000 NM, AND WAS INACTIVE ON T
CC LYMPHOCYTES, NEUTROPHILS, AND EOSINOPHIL LEUKOCYTES. ENHANCES THE
CC PROLIFERATION OF CD34 MYELOID PROGENITOR CELLS.
CC -1- TISSUE SPECIFICITY: EXPRESSED CONSTITUTIVELY IN SEVERAL NORMAL
CC TISSUES: SPLEEN, LIVER, SKELETAL AND HEART MUSCLE, GUT, AND BONE
CC MARROW, PRESENT AT HIGH CONCENTRATIONS (1-80 NM) IN PLASMA.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: 249370; GI0004269; -.
DR EMBL: 270292; E233856; -.
DR EMBL: 249269; GI0004267; -.
DR MIM: 601392; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; SIGNAL.
FT SIGNAL 1 19
FT CHAIN 20 93
FT DISULFID 35 59
FT DISULFID 36 75
FT DISULFID 36 75
SQ SEQUENCE 93 AA: 10678 MW: A3E7BCAD CRC32;
Query Match 79.8%; Score 75; DB 1; Length 93;
Best Local Similarity 63.6%; Pred. No. 1.03e-04;
Matches 7; Conservative 4; Mismatches 0; Indels 0; Gaps 0;
Db 74 VCTNPSDKWQ 84
: : : : :
OY 2 ICADPSQKWQ 12
RESULT 26
ID CCC3_HUMAN STANDARD; PRT; 109 AA.
AC 013954;
DT 01-NOV-1997 (REL. 35, CREATED)
DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
DE CHEMOKINE CC-3 PRECURSOR (HCC-3).
DE HOMO SAPIENS (HUMAN).
OS EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=LIVER;
RA PARDIGOT A., MAEGERT H.-J., ZUCHT H.D., FORSSMANN W.-G.,
RA SCHULZ-KNAPE P.;
RL SUBMITTED (MAY-1996) TO EMBL/GENBANK/DDJ DATA BANKS.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: 270293; E233858; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; SIGNAL.
FT SIGNAL 1 2
FT CHAIN 1 109
FT DISULFID 51 75
FT DISULFID 52 91
FT DISULFID 52 91
SQ SEQUENCE 109 AA: 12297 MW: 9AE90F93 CRC32;
Query Match 79.8%; Score 75; DB 1; Length 109;
Best Local Similarity 63.6%; Pred. No. 1.03e-04;
Matches 7; Conservative 4; Mismatches 0; Indels 0; Gaps 0;
Db 90 VCTNPSDKWQ 100
: : : : :
OY 2 ICADPSQKWQ 12
RESULT 27
ID MCPB_BOVIN STANDARD; PRT; 74 AA.
AC P80343;
DT 01-FEB-1995 (REL. 31, CREATED)

DT 01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1B (MCP-1B) (FRAGMENT).
OS BOS TAURUS (BOVINE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLA.
RN [1]
RP SEQUENCE.
RC TISSUE=KIDNEY;
RX MEDLINE: 95034774.
RA PROOST P., WUTTS A., LEMBERTS J.-P., VAN DAMME J.;
RL BIOCHEMISTRY 33:13406-13412(1994).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR ACTIVITY. ALSO INDUCES
CC THE RELEASE OF GELATINASE B. THIS PROTEIN CAN BIND HEPARIN.
CC -1- PTM: THE N-TERMINAL IS BLOCKED.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; HEPARIN-BINDING.
FT NON_TER 1 1
FT DISULFID 9 34
FT DISULFID 10 50
FT DISULFID 10 50
SQ SEQUENCE 74 AA: 8360 MW: 66172F08 CRC32;
Query Match 78.7%; Score 74; DB 1; Length 74;
Best Local Similarity 66.7%; Pred. No. 1.75e-04;
Matches 8; Conservative 1; Mismatches 3; Indels 0; Gaps 0;
Db 48 ETCAPKXKWQ 59
: : : : :
OY 1 ETCADPSQKWQ 12
RESULT 28
ID SISD_MOUSE STANDARD; PRT; 91 AA.
AC P30882;
DT 01-JUL-1993 (REL. 26, CREATED)
DT 01-JUN-1994 (REL. 29, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE T-CELL SPECIFIC RANTES PROTEIN PRECURSOR (SIS-DELTA) (SMALL INDUCIBLE
DE CYTOKINE A5) (MORANTES).
OS SCYAS.
GN MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 92277990.
RA HEEGER P., WOLF G., MEYERS C., SUN M.J., O'FARRELL S.C.,
RA KRENSKY A.M., NEILSON E.G.;
RL KIDNEY INT. 41:220-225(1992).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 92289805.
RA SCHALL T.J., SIMPSON N.J., MAR J.Y.;
RL EUR. J. IMMUNOL. 22:1477-1481(1992).
RN [3]
RP SEQUENCE FROM N.A.
RC STRAIN=NTH;
RX MEDLINE: 94132613.
RA DANOFF T.M., LALLEY P.A., CHANG Y.S., HEEGER P.S., NEILSON E.G.;
RL J. IMMUNOL. 152:1182-1189(1994).
RN [4]
RP SEQUENCE FROM N.A.
RX STRAIN=BALB/C;
RX MEDLINE: 94217689.
RA SHIN H.S., DRYSDALE B.E., SHIN M.L., NOBLE P.W., FISHER S.N.,
RA PAZNERAS W.A.;
RL MOL. CELL. BIOL. 14:2914-2925(1994).
CC -1- FUNCTION: CHEMOTACTICANT FOR BLOOD MONOCYTES. MEMORY T HELPER
CC CELLS AND EOSINOPHILS. CAUSES THE RELEASE OF HISTAMINE FROM
CC BASOPHILS AND ACTIVATES EOSINOPHILS.

CC -1- TISSUE SPECIFICITY: T-CELL AND MACROPHAGE SPECIFIC.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
DR EMBL: M77747; G200650; -.
DR EMBL: S37648; G200208; -.
DR EMBL: U02298; G460091; -.
DR EMBL: X70675; G475206; -.
DR HSSP: P13236; IHDM.
DR MGI: 98262; SCYAS.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; T-CELL; SIGNAL; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23
FT CHAIN 24 91
FT DISULFID 33 57
FT DISULFID 34 73
FT CONFLICT 19 19
FT CONFLICT 41 41
FT CONFLICT 41 41
SQ SEQUENCE 91 AA; 10071 MW; E616A203 CRC32;
Query Match 78.7%; Score 74; DB 1; Length 91;
Best Local Similarity 58.3%; Pred. No. 1.75e-04;
Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;
Db 71 QVCANPEKRWQ 82
: : : : :
QY 1 EICADPSQKWQ 12
RESULT 29
ID MIB_RABIT STANDARD; PRT; 92 AA.
AC P46632;
DT 01-NOV-1995 (REL. 32, CREATED)
DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
DE MACROPHAGE INFLAMMATORY PROTEIN 1-BETA PRECURSOR (MIP-1-BETA) (IMMUNE
DE ACTIVATION PROTEIN 2) (ACT-2).
GN SCY4.
OS ORYCTOLAGUS CUNICULUS (RABBIT).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; LAGOMORPHA.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-NEW ZEALAND WHITE;
RX MEDLINE: 94198229.
KA MORT S., GOTO K., GOTO F., MUTAKAMI K., OKAMURA S., YOSHINAGA M.;
RL INT. IMMUNOL. 6:149-156(1994).
CC -1- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES
(BY SIMILARITY).
CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
DR EMBL: D17402; G599578; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 23
FT CHAIN 24 92
FT DISULFID 34 58
FT DISULFID 74 74
SQ SEQUENCE 92 AA; 10066 MW; A629AB2D CRC32;
Query Match 78.7%; Score 74; DB 1; Length 92;
Best Local Similarity 58.3%; Pred. No. 1.75e-04;
Matches 7; Conservative 4; Mismatches 1; Indels 0; Gaps 0;
Db 72 QVCANPEKRWQ 83
: : : : :
QY 1 EICADPSQKWQ 12
RESULT 30
ID SISD_RAT STANDARD; PRT; 92 AA.
AC P50231;
DT 01-OCT-1996 (REL. 34, CREATED)

DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 13-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE T-CELL SPECIFIC RANTES PROTEIN PRECURSOR (SIS-DELTA) (SMALL INDUCIBLE
DE CYTOKINE A5).
GN SCYAS.
OS RATTUS NORVEGICUS (RAT).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-LONG EVANS; TISSUE-LUNG;
RA JONES M.L., SHANLEY T.P., WARD P.A.;
RL SUBMITTED (FEB-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -1- FUNCTION: CHEMOTRACTANT FOR BLOOD MONOCYTES, MEMORY T HELPER
CC BASOPHILS AND ACTIVATES EOSINOPHILS (BY SIMILARITY).
CC CELLS AND EOSINOPHILS. CAUSES THE RELEASE OF HISTAMINE FROM
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
DR EMBL: U06436; G459152; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; T-CELL; SIGNAL; INFLAMMATORY RESPONSE.
FT SIGNAL 1 24
FT CHAIN 25 92
FT DISULFID 34 58
FT DISULFID 35 74
SQ SEQUENCE 92 AA; 10170 MW; 9F897698 CRC32;
Query Match 78.7%; Score 74; DB 1; Length 92;
Best Local Similarity 58.3%; Pred. No. 1.75e-04;
Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;
Db 72 QVCANPEKRWQ 83
: : : : :
QY 1 EICADPSQKWQ 12

Search completed: Thu Apr 1 07:36:30 1999
Job time : 9 secs.

W050504 (TM)

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MPsrch_pp protein - protein database search, using Smith-Waterman algorithm
Run on: Thu Apr 1 07:36:48 1999; MasPar time 4.96 Seconds
133.528 Million cell updates/sec
Tabular output not generated.

Title: >US-08-927-939-11
Description: (1-12) from US08927939.pep
Perfect Score: 94
Sequence: 1 EICADPSQKWVQ 12

Scoring table:
PAM 150
Gap 15

Searched: 180763 seqs, 55169189 residues

Post-processing: Minimum Match 0%
Listing first 100 summaries

Database:

sptrembl8
1:sp_archaea 2:sp_bacteria 3:sp_fungi 4:sp_human
5:sp_invertebrate 6:sp_mammal 7:sp_mhc 8:sp_organelle
9:sp_phase 10:sp_plant 11:sp_rodent 12:sp_unclassified
13:sp_vertebrate 14:sp_virus

Statistics: Mean 25.153; Variance 33.783; scale 0.745

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description	Pred. No.	
1	77	81.9	80	4	014745	LD78 ALPHA BETA PRECUR	1.68e-04
2	73	77.7	97	13	057411	LYMPHOTACTIN PRECURSOR	1.31e-03
3	73	77.7	395	11	035188	NEUTROLACTIN.	1.31e-03
4	73	77.7	395	11	035933	FRACTALAKTINE.	1.31e-03
5	72	76.6	95	14	098458	ORF K6.	2.18e-03
6	70	74.5	92	11	088430	CC CHEMOKINE ABCD-1.	5.93e-03
7	70	74.5	120	4	015467	IL-10-INDUCIBLE CHEMOK	5.93e-03
8	69	73.4	119	4	000175	MP1F-2.	9.74e-03
9	68	72.3	91	4	043646	RANTES PRECURSOR.	1.60e-02
10	68	72.3	97	11	089093	CC CHEMOKINE ST38 PREC	1.60e-02
11	68	72.3	134	4	000585	BETA CHEMOKINE EXODUS-	1.60e-02
12	67	71.3	97	6	062812	INTERLEUKIN-8 (FRAGMEN	2.60e-02
13	66	70.2	133	11	009002	SMALL INDUCIBLE CYTOKI	4.23e-02
14	66	70.2	133	11	009006	BETA CHEMOKINE EXODUS-	4.23e-02
15	64	68.1	95	4	099864	CHEMOKINE EXODUS.	1.10e-01
16	64	68.1	96	11	P97884	CC CHEMOKINE EXODUS.	1.10e-01
17	62	66.0	109	11	005038	B LYMPHOCYTE CHEMOTACT	2.84e-01
18	61	64.9	93	4	000626	MACROPHAGE-DERIVED CHE	4.52e-01
19	61	64.9	101	13	093238	CC CHEMOKINE-1.	4.52e-01
20	61	64.9	552	5	046178	RADIAL SPOKEHEAD.	4.52e-01

21	59	62.8	203	14	067634	ECO Q PROTEIN (FRAGMENT	1.13e+00
22	59	62.8	397	4	P78423	CX3C CHEMOKINE PRECURS	1.13e+00
23	58	61.7	104	13	073912	K60 PROTEIN PRECURSOR.	1.78e+00
24	58	61.7	108	11	070460	EBI-1 LIGAND CHEMOKINE	1.78e+00
25	58	61.7	109	4	043927	CXC CHEMOKINE PRECURSO	1.78e+00
26	57	60.6	307	10	065737	BETA CHEMOKINE PRECURS	2.78e+00
27	57	60.6	730	10	065736	BETA-GALACTOSIDASE (EC	2.78e+00
28	57	60.6	859	14	097013	BETA-GALACTOSIDASE (EC	2.78e+00
29	56	59.6	94	14	098157	ENVELOPE GLYCOPROTEIN	4.33e+00
30	56	59.6	724	10	081100	BETA-GALACTOSIDASE (EC	4.33e+00
31	56	59.6	760	3	099126	CHITIN SYNTHETASE I.	4.33e+00
32	55	58.5	852	14	073303	ENVELOPE GLYCOPROTEIN.	6.70e+00
33	54	57.4	95	2	P78080	ATP BINDING PROTEIN (F	1.03e+01
34	54	57.4	108	2	Q50686	INSERTION ELEMENT IS61	1.03e+01
35	54	57.4	117	10	042317	BETA GALACTOSIDASE (FR	1.03e+01
36	54	57.4	187	2	083516	HYPOTHEICAL 21.4 KD P	1.03e+01
37	54	57.4	629	5	P91819	RNA POLYMERASE II LANG	1.03e+01
38	54	57.4	822	4	060287	KIA0539 PROTEIN	1.03e+01
39	54	57.4	852	10	023243	BETA-GALACTOSIDASE.	1.03e+01
40	54	57.4	853	10	042150	BETA-GALACTOSIDASE LTK	1.03e+01
41	54	57.4	1825	5	061210	H19M22-1 PROTEIN (FRAG	1.03e+01
42	53	56.4	101	13	093442	LFCA-1 PROTEIN PRECURS	1.58e+01
43	53	56.4	257	11	088827	PLASMA CELL MEMBRANE G	1.58e+01
44	53	56.4	341	2	P72894	HYPOTHEICAL 37.4 KD P	1.58e+01
45	53	56.4	367	5	Q17575	COL16.9.	1.58e+01
46	53	56.4	424	2	Q48859	DNA-BINDING PROTEIN.	1.58e+01
47	53	56.4	707	10	065761	BETA-GALACTOSIDASE (EC	1.58e+01
48	53	56.4	1053	5	084834	RIBONUCLEOSIDE REDUCTA	1.58e+01
49	53	56.4	1224	5	P91309	CODED FOR BY C. ELEGAN	1.58e+01
50	52	55.3	146	14	084738	TYPE 14 (HRV14), COMPL	2.41e+01
51	52	55.3	146	14	084776	14 (HRV-14) RNA SEQUEN	2.41e+01
52	52	55.3	332	1	028318	PYRVATE FORMATE-LYASE	2.41e+01
53	52	55.3	723	10	082670	BETA-GALACTOSIDASE (EC	2.41e+01
54	51	54.3	40	14	Q71971	PATIENT 3799(12-88), C	3.64e+01
55	51	54.3	40	14	Q71990	PATIENT 3799(12-88), C	3.64e+01
56	51	54.3	40	14	Q72003	PATIENT 3799(9-93), CL	3.64e+01
57	51	54.3	96	13	090825	CYTOKINE.	3.64e+01
58	51	54.3	142	10	064729	POTATIVE NUCLEIC ACID	3.64e+01
59	51	54.3	248	10	081404	1-AMINOCYCLOPROPANE-1-	3.64e+01
60	51	54.3	253	2	053582	HYPOTHEICAL PROTEIN (	3.64e+01
61	51	54.3	306	5	023084	COSMID ZC8.	3.64e+01
62	51	54.3	319	4	043497	T-TYPE CALCIUM CHANNEL	3.64e+01
63	51	54.3	393	5	Q45686	K1122.2.	3.64e+01
64	51	54.3	399	14	087409	ORF UL154.	3.64e+01
65	51	54.3	466	10	082719	ACC SYNTHASE (EC 4.4.1	3.64e+01
66	51	54.3	491	14	041622	ENVELOPE GLYCOPROTEIN	3.64e+01
67	51	54.3	491	10	043747	1-AMINOCYCLOPROPANE-1-	3.64e+01
68	51	54.3	497	10	042610	1-AMINOCYCLOPROPANE-1-	3.64e+01
69	51	54.3	667	2	Q44062	AMYLASE.	3.64e+01
70	51	54.3	847	14	P88525	ENVELOPE GLYCOPROTEIN	3.64e+01
71	51	54.3	852	14	092761	ENVELOPE GLYCOPROTEIN.	3.64e+01
72	51	54.3	856	14	P88523	ENVELOPE GLYCOPROTEIN	3.64e+01
73	51	54.3	1014	5	026152	V-SERA 2.	3.64e+01
74	51	54.3	2286	11	054898	LOW VOLTAGE-ACTIVATED,	3.64e+01
75	51	54.3	6875	6	Q28733	TITIN (FRAGMENT).	3.64e+01
76	51	54.3	26926	4	Q10466	TITIN, HEART ISOFORM N	3.64e+01
77	50	53.2	145	2	P74671	HYPOTHEICAL 16.6 KD P	5.48e+01
78	50	53.2	186	5	045847	T27C5.3.	5.48e+01
79	50	53.2	224	5	045846	T27C5.2.	5.48e+01
80	50	53.2	252	14	P89687	VIF PROTEIN.	5.48e+01
81	50	53.2	348	3	Q74739	CONSERVED HYPOTHEICAL.	5.48e+01
82	50	53.2	350	3	Q06151	CHROMOSOME XII COSMID	5.48e+01
83	50	53.2	375	2	044050	CARBOXYLIC ESTER HYDRO	5.48e+01
84	50	53.2	383	5	077102	PROHENOIL OXIDASE ACTI	5.48e+01
85	50	53.2	397	3	Q12123	03625P.	5.48e+01
86	50	53.2	419	11	063629	CENPAURIN ALPHA.	5.48e+01
87	50	53.2	515	14	Q74304	ENVELOPE GLYCOPROTEIN	5.48e+01
88	50	53.2	529	2	Q06394	HYPOTHEICAL 57.1 KD P	5.48e+01
89	50	53.2	594	2	024970	VARIANT-SPECIFIC SURFA	5.48e+01
90	50	53.2	610	14	084595	SIMILAR TO PRCV-1 ORF	5.48e+01
91	50	53.2	627	5	P91874	HEAT SHOCK PROTEIN 70.	5.48e+01
92	50	53.2	804	5	P91199	SIMILARITY TO C2 DOMAI	5.48e+01
93	50	53.2	841	5	Q24032	CORSCREW PROTEIN Y122	5.48e+01

94 50 53.2 856 14 041564 ENVELOPE GLYCOPROTEIN. 5.48e+01
95 50 53.2 860 14 093091 ENVELOPE GLYCOPROTEIN. 5.48e+01
96 50 53.2 982 5 093290 HYPOTHETICAL PROTEIN C 5.48e+01
97 50 53.2 1396 5 P90865 T24B8.7 PROTEIN. 5.48e+01
98 50 53.2 1817 5 019931 COSMID F31D5. 5.48e+01
99 49 52.1 40 14 071888 PATIENT 3799(9-93), CL 8.20e+01
100 49 52.1 852 14 041885 ENVELOPE GLYCOPROTEIN. 8.20e+01

ALIGNMENTS

RESULT 1
ID 014745 PRELIMINARY: PRT: 80 AA.
AC 014745.
DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE L078 ALPHA BETA PRECURSOR (FRAGMENT).
US HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-BRAIN:
RA ISHIZUKA K., IGATA-YI R., NARUSE K., NAKASHIMA H., OHUCHI K.,
RA KATSURAGI S., KIN Y., OHMOTO Y., NOMIYAMA H., IIO M., MIURA R.,
RA MIYAKAWA T.;
RL SUBMITTED (AUG-1995) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; D63785; G961440; -
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
DR PFAM; PF00048; 118; 1.
KM SIGNAL.
FT NON_TER 1 1
FT SIGNAL <1 16 POTENTIAL.
FT CHAIN 17 >80 LD78 ALPHA BETA.
FT NON_TER 80 80
SQ SEQUENCE 80 AA; 8857 MW; 3F87F1C6 CRC32;

Query Match 81.9%; Score 77; DB 4; Length 80;
Best Local Similarity 66.7%; Pred. No. 1.68e-04;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 65 OVCADPSEKWKVQ 76
:::|||||::|
Qy 1 EICADPSQKWKVQ 12

RESULT 2
ID 057411 PRELIMINARY: PRT: 97 AA.
AC 057411.
DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
DT 01-JUN-1998 (TREMBLREL. 06, LAST ANNOTATION UPDATE)
DE LYMPHOTACTIN PRECURSOR.
OS GALIUS GALLUS (CHICKEN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ARCHOSAURIA; AVES;
OC NEOGNATHA; GALLIFORMES; PHASIANIDAE; PHASIANINAE; GALLUS.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-SPLEEN;
RA ROSSI D.L., BAZAN J.F., ZLOTNIK A.;
RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; AF006742; G2827882; -
KM SIGNAL.
FT SIGNAL 1 24 POTENTIAL.
FT CHAIN 25 97 LYMPHOTACTIN.
SQ SEQUENCE 97 AA; 11131 MW; 3290101C CRC32;

Query Match 77.7%; Score 73; DB 13; Length 97;
Best Local Similarity 72.7%; Pred. No. 1.31e-03;
Matches 8; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Db 72 IGVHPEKWKVQ 82

Qy 2 ICADPSQKWKVQ 12
:::|||||::|

RESULT 3
ID 035188 PRELIMINARY: PRT: 395 AA.
AC 035188.
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE NEUTROTACTIN.
GN SCYD1.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCIROGNATHI; MORIDAE; MORINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE; 97320499.
RA PAN Y., CLARE L., HONG Z., DOLICH S., DEEDS J., GONZALO J., VATH J.,
RA GOSSEIN M., MA J., DUSSAULT B., WOLFF B., ALPERIN A., CULPEPPER J.,
RA GUTIERREZ-RAVOS J.C., GEARING D.;
RT "Neurotactin, a membrane-anchored chemokine upregulated in brain
inflammation."
RL NATURE 387:611-617(1997).
DR EMBL; AF010586; G2317698; -
DR MGI; MGI:1097153; SCYD1.
DR PFAM; PF00048; 118; 1.
SQ SEQUENCE 395 AA; 42098 MW; E3CD0612 CRC32;

Query Match 77.7%; Score 73; DB 11; Length 395;
Best Local Similarity 72.7%; Pred. No. 1.31e-03;
Matches 8; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 73 FCADPKKWKVQ 83
:|||||::|
Qy 2 ICADPSQKWKVQ 12

RESULT 4
ID 035933 PRELIMINARY: PRT: 395 AA.
AC 035933.
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE FRACTALINE.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCIROGNATHI; MORIDAE; MORINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-BALB/C; TISSUE-BRAIN;
RA ROSSI D., HARDIAN G., COPELAND N., GILBERT D.J., JENKINS N.,
RA ZLOTNIK A., BAZAN J.F.;
RL SUBMITTED (MAR-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; U92565; G2459677; -
DR PFAM; PF00048; 118; 1.
SQ SEQUENCE 395 AA; 42040 MW; 3997A113 CRC32;

Query Match 77.7%; Score 73; DB 11; Length 395;
Best Local Similarity 72.7%; Pred. No. 1.31e-03;
Matches 8; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 73 FCADPKKWKVQ 83
:|||||::|
Qy 2 ICADPSQKWKVQ 12

RESULT 5
ID 098158 PRELIMINARY: PRT: 95 AA.
AC 098158; 012569;
DT 01-FEB-1997 (TREMBLREL. 02, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)

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DE ORF K6.
OC KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS.
OC VIRUSES; DSDNA VIRUSES, NO RNA STAGE; HERPESVIRIDAE;
OC GAMMAHERPESVIRINAE; RHADINOVIRUS.
RN [1]
RN SEQUENCE FROM N.A.
RX MEDLINE: 97094384.
RA MOORE P.S., BASHOFF C., WEISS R.A., CHANG Y.;
RT "Molecular mimicry of human cytokine and cytokine response pathway
RT genes by KSHV."
RL SCIENCE 274:1739-1744(1996).
RN [2]
RN SEQUENCE FROM N.A.
RX MEDLINE: 97121480.
RA RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
RT "Nucleotide sequence of the Kaposi sarcoma-associated herpesvirus
RT (HHV8)."
RL PROC. NATL. ACAD. SCI. U.S.A. 93:14862-14867(1996).
RN [3]
RN SEQUENCE FROM N.A.
RA RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
RL SUBMITTED (OCT-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [4]
RN SEQUENCE FROM N.A.
RA NICHOLAS J., RUVOLO V.R., BURNS W.H., SANDFORD G., WAN X., CIUFFO D.,
RA HENDRICKSON S., GUO H.G., HAYWARD G.S., REITZ M.S.;
RL SUBMITTED (NOV-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [5]
RN SEQUENCE FROM N.A.
RA RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [6]
RN SEQUENCE FROM N.A.
RX MEDLINE: 97296220.
RA NEIPEL F., ALBRECHT J.C., FLECKENSTEIN B.;
RT "Cell-homologous genes in the Kaposi's sarcoma-associated rhadinovirus
RT human herpesvirus 8: determinants of its pathogenicity?";
RL J. VIROL. 71:4187-4192(1997).
RN [7]
RN SEQUENCE FROM N.A.
RA SUN R., LIN S.-F., MILLER G.;
RL SUBMITTED (SEP-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: U75698; G1718266; -
DR EMBL: U74585; G1658373; -
DR EMBL: U93872; G2246546; -
DR EMBL: U71366; G3551763; -
DR PFM: PF00048; 118; 1.
KW HYPOTHETICAL PROTEIN.
SQ SEQUENCE 95 AA; 10485 MW; 5283348D CRC32;
Query Match 76.6%; Score 72; DB 14; Length 95;
Best Local Similarity 66.7%; Pred. No. 2.18e-03;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;
Db 74 QICADPSKRWV 85
QY 1 EICADPSQKWV 12
RESULT 6
ID 088430 PRELIMINARY; PRT; 92 AA.
AC 088430;
DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CC CHEMOKINE ABCD-1.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
OC RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; MUS.
RN [1]

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RP SEQUENCE FROM N.A.
RC TISSUE-LIVER.
RX MEDLINE: 98353531.
RA SCHANIEL C., PARDALI E., SALTUSTO F., SPELETAS M., RUDEL C.,
RA SHIMIZU T., SEIDL T., ANDERSSON J., MELCHERS F., ROLINK A.G.,
RA SIBERAS P.;
RT "Activated murine B lymphocytes and dendritic cells produce a novel
RT CC chemokine which acts selectively on activated T cells."
RL J. EXP. MED. 188:451-463(1998).
DR EMBL: AF052505; G3378116; -
SQ SEQUENCE 92 AA; 10302 MW; BC7219A0 CRC32;
Query Match 74.5%; Score 70; DB 11; Length 92;
Best Local Similarity 72.7%; Pred. No. 5.93e-03;
Matches 8; Conservative 1; Mismatches 2; Indels 0; Gaps 0;
Db 74 DICADPROVW 84
QY 1 EICADPSQKWV 11
RESULT 7
ID 015467 PRELIMINARY; PRT; 120 AA.
AC 015467;
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE IL-10-INDUCIBLE CHEMOKINE.
GN ILINCK OR SCYAL6.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RN SEQUENCE FROM N.A.
RA HEDRICK J.A., HELMS A., GORMAN D., ZLOTNIK A.;
RL SUBMITTED (NOV-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RN SEQUENCE FROM N.A.
RC TISSUE-LIVER.
RA SHODAI K., HIESHIMA K., FUKUDA S., ITO M., MIURA R., IMAI T.,
RA YOSHIE O., NOMIYAMA H.;
RL BIOCHIM. BIOPHYS. ACTA 0:0-0(1998).
RN [3]
RN SEQUENCE FROM N.A.
RA NOMIYAMA H.;
RT "Structure of a region of 181 kb containing five CC chemokine genes."
RL SUBMITTED (AUG-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [4]
RN SEQUENCE FROM N.A.
RX MEDLINE: 98308096.
RA YOUN B.S., ZHANG S., BROXMEYER H.E., ANTOL K., FRASER M.J. JR.,
RA HANGOC G., KHON B.S.;
RT "Isolation and characterization of LMC, a novel lymphocyte and
RT monocyte chemoattractant human CC chemokine, with myelosuppressive
RT activity."
RL BIOCHEM. BIOPHYS. RES. COMMUN. 247:217-222(1998).
DR EMBL: U91746; G2581781; -
DR EMBL: AB007454; D1024963; -
DR EMBL: AF088219; G3719365; -
DR EMBL: AF055467; G3395776; -
DR PFM: PF00048; 118; 1.
KW SIGNAL.
SQ SEQUENCE 120 AA; 13600 MW; A079DF66 CRC32;
Query Match 74.5%; Score 70; DB 4; Length 120;
Best Local Similarity 50.0%; Pred. No. 5.93e-03;
Matches 6; Conservative 5; Mismatches 1; Indels 0; Gaps 0;
Db 74 EVCINPNDVWQ 85
QY 1 EICADPSQKWV 12

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OY 1 EICADPSQKWQ 12

RESULT 12
ID 062812 PRELIMINARY; PRT; 97 AA.
AC 062812:
DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
DT 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 (FRAGMENT).
GN IL-8.
OS EQUUS CABALLUS (HORSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCUROGNATHI; MORIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-BRONCHOALVEOLAR TISSUE;
RA FRANCHINI M.;
RL SUBMITTED (APR-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; AF062377; G3126973; -.
FT NON_TER 97
SQ SEQUENCE 97 AA; 10742 MW; 00396FBF CRC32;

Query Match 71.3%; Score 67; DB 6; Length 97;
Best Local Similarity 58.3%; Pred. No. 2.60e-02;
Matches 7; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

Db 75 EVCNPHRTKWQ 86
OY 1 EICADPSQKWQ 12

RESULT 13
ID 009002 PRELIMINARY; PRT; 133 AA.
AC 009002:
DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE SMALL INDUCIBLE CYTOKINE A21 (TCA4).
GN SCYA21.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCUROGNATHI; MORIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-THYMUS;
RA TANABE S., LU Z., LUO Y., QUACKENBUSH E.J., BERMAN M.A.,
RA COLLINS-RACIE L.A., MI S., REILLY C., LO D., JACOBS K.A., DORF M.E.;
RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE; 97400322.
RA HEDRICK J.A., ZLOTNIK A.;
RT "Identification and characterization of a novel beta chemokine
containing six conserved cysteines.";
RL J. IMMUNOL. 159:1589-1593(1997).
RN [3]
RP SEQUENCE FROM N.A.
RA HERBICK J.A., ZLOTNIK A.;
RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; AF006537; G2209189; -.
DR EMBL; AF001980; G2624927; -.
DR MGD; MGI:1097677; SCYA21.
DR PFAM; PF00048; 118; 1.
SQ SEQUENCE 133 AA; 14558 MW; C0532523 CRC32;

Query Match 70.2%; Score 66; DB 11; Length 133;
Best Local Similarity 58.3%; Pred. No. 4.23e-02;
Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 73 EICANPEGWQ 84
OY 1 EICADPSQKWQ 12

RESULT 14
ID 009006 PRELIMINARY; PRT; 133 AA.
AC 009006:
DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE BETA CHEMOKINE EXODUS-2.
GN SCYA21.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCUROGNATHI; MORIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-TOTAL FETUS;
RX MEDLINE; 97444139.
RA HROMAS R., KIM C.H., KLEMSZ M., KRATHWOHL M., FIFE K., COOPER S.,
RA SCHNITZLEIN-BICK C., BROXMEYER H.E.;
RT "Isolation and characterization of Exodus-2, a novel C-C chemokine
with a unique 37-amino acid carboxyl-terminal extension.";
RL J. IMMUNOL. 159:2554-2558(1997).
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE-TOTAL FETUS;
RA HROMAS R.A.;
RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; U88322; G3169697; -.
DR MGD; MGI:1097677; SCYA21.
DR PFAM; PF00048; 118; 1.
SQ SEQUENCE 133 AA; 14600 MW; B345E22 CRC32;

Query Match 70.2%; Score 66; DB 11; Length 133;
Best Local Similarity 58.3%; Pred. No. 4.23e-02;
Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 73 EICANPEGWQ 84
OY 1 EICADPSQKWQ 12

RESULT 15
ID 009664 PRELIMINARY; PRT; 95 AA.
AC 009664:
DT 01-MAY-1997 (TREMBLREL. 03, CREATED)
DT 01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CHEMOKINE EXODUS.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-PANCREAS;
RX MEDLINE; 97275143.
RA HROMAS R., GRAY P.W., CHANTRY D., GODISKA R., KRATHWOHL M., FIFE K.,
RA BELL G.I., TAKEDA J., ARONICA S., GORDON M., COOPER S., BROXMEYER H.E.,
RA KLEMSZ M.J.;
RT "Cloning and characterization of exodus, a novel beta-chemokine.";
RL BLOOD 89:3315-3322(1997).
DR EMBL; U64197; G178717; -.
DR PROSITE; PS00472; SMALL_CYTOKINES.CC; 1.
DR PFAM; PF00048; 118; 1.
SQ SEQUENCE 95 AA; 10691 MW; 1526B4C0 CRC32;

Query Match 68.1%; Score 64; DB 4; Length 95;
Best Local Similarity 60.0%; Pred. No. 1.10e-01;
Matches 6; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 72 VCANPKOTWV 81
OY 2 ICADPSQKWV 11

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RESULT 16
ID P97884 PRELIMINARY; PRT; 96 AA.
AC P97884;
DT 01-MAY-1997 (TREMBLREL. 03, CREATED)
DT 01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CC CHEMOKINE EXODUS.
OS RATTUS NORVEGICUS (RAT).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCIUOGNATHI; MURIDAE; MURINAE; RATTUS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=SPRAGUE-DAWLEY.
RA KELLER G.S., MACIEJEWSKI-LENOIR D., LEE E.D., MARI R.A.;
RL SUBMITTED (FEB-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RC STRAIN=FISHER 344; TISSUE=BRIN;
RA LESSLAUER W.;
PA "A novel rat CC chemokine, identified by targeted differential
display, is upregulated in brain inflammation.";
RL J. NEUROIMMUNOL. 0:0-0(1998).
DR EMBL: U90447; G1899246; -.
DR EMBL: AF053312; G3551817; -.
DR PFAM: PF00048; 118; 1.
KW SIGNAL.
SQ SEQUENCE 96 AA; 10875 MW; 3FC09DD8 CRC32;

Query Match 68.1%; Score 64; DB 11; Length 96;
Best Local Similarity 70.0%; Pred. No. 1.10e-01;
Matches 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 73 VCADPQKIWV 82
:|||||
QY 2 ICADPSQKWV 11

RESULT 17
ID 055038 PRELIMINARY; PRT; 109 AA.
AC 055038;
DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE B LYMPHOCYTE CHEMOKINE RECEPTOR BLC.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCIUOGNATHI; MURIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=C57BL/6J;
RA GUNN M.D., NGO V.N., ANSEL K.M., ERLAND E.H., CYSTER J.G.,
RA WILLIAMS L.T.;
PA "A B-cell-homing chemokine made in lymphoid follicles activates
Burkitt's lymphoma receptor-1.";
RL NATURE 391:799-803(1998).
DR EMBL: AF044196; G2911374; -.
DR SUBMITTED (JAN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
SQ SEQUENCE 109 AA; 11927 MW; BB6CCC22 CRC32;

Query Match 66.0%; Score 62; DB 11; Length 109;
Best Local Similarity 54.5%; Pred. No. 2.84e-01;
Matches 6; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

Db 74 ICVNPRAKWL 84
||:|:|
QY 2 ICADPSQKWV 12

RESULT 18
ID 000626 PRELIMINARY; PRT; 93 AA.
AC 000626;

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DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE MACROPHAGE-DERIVED CHEMOKINE PRECURSOR.
GN MDC OR A-1525.1.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RA GODISKA R., CHENTRY D., RAPORT C.J., SOZZANI S., ALLAVENA P.,
RA MANTOVANI A., GRAY P.W.;
RL J. EXP. MED. 185:0-0(0).
RN [2]
RP SEQUENCE FROM N.A.
RA CHANG M.S., MCNINCH J., ELIAS III C., MANTHEY C.L., GROSSHANS D.,
RA MENG T., BOONE T., ANDREW D.P.;
RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [3]
RP SEQUENCE FROM N.A.
RA ADAMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRMANN J., MASON T.M.,
RA BRANON R., KIM U.J., KERLAVAGE A.R., VENTER J.C.;
RT "Homo sapiens Chromosome 16 BAC clone C1987SK-A-1525.";
RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: U83171; G1931581; -.
DR EMBL: U83239; G2062425; -.
DR EMBL: AC004382; G3252820; -.
DR PFAM: PF00048; 118; 1.
KW SIGNAL.
FT SIGNAL. 1 24 POTENTIAL.
FT CHAIN 25 93 MACROPHAGE-DERIVED CHEMOKINE.
SQ SEQUENCE 93 AA; 10580 MW; 65EA63D2 CRC32;

Query Match 64.9%; Score 61; DB 4; Length 93;
Best Local Similarity 72.7%; Pred. No. 4.52e-01;
Matches 8; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Db 74 EICADPRVWV 84
|||||
QY 1 EICADPSQKWV 11

RESULT 19
ID 093238 PRELIMINARY; PRT; 101 AA.
AC 093238;
DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CC CHEMOKINE-1.
OS CYPRINUS CARPIO (COMMON CARP).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ACTINOPTERYGII; NEOPTERYGII;
OC TELEOSTEI; EUTELEOSTEI; OSTARIOPHYSI; CYPRINIFORMES; CYPRINOIDEA;
OC CYPRINIDAE; CYPRININAE; CYPRINUS.
RN [1]
RP SEQUENCE FROM N.A.
RA FUJIKI K., NAKAO M., SHIN D., YANO T.;
PA "cDNA cloning of a carp CC chemokine homologous to mammalian
eotaxins.";
RL SUBMITTED (JAN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AB010469; D1032417; -.
DR SUBMITTED (JAN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
SQ SEQUENCE 101 AA; 11266 MW; 9CFBD540 CRC32;

Query Match 64.9%; Score 61; DB 13; Length 101;
Best Local Similarity 54.5%; Pred. No. 4.52e-01;
Matches 6; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 72 EFCSDPKLWV 82
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QY 1 EICADPSQKWV 11

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RESULT 20
ID 046178 PRELIMINARY; PRT; 552 AA.

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AC 046178;
DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
DE 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE RADIAL SPOKEHEAD.
OC STRONGYLOCENTROTUS PURPURATUS (PURPLE SEA URCHIN).
OC EUKARYOTA; METAZOA; ECHINODERMATA; ECHINOZOA; ECHINOIDEA; EUECHINOIDEA;
OC ECHINACCA; ECHINOIDA; STRONGYLOCENTROTIDAE; STRONGYLOCENTROTUS.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 98119758.
RA GINGRAS D., GARNON C.;
RT "Molecular cloning and characterization of a radial spoke head protein
RT of sea urchin sperm axonemes: Involvement of the protein in the
RT regulation of sperm motility."
RL MOL. BIOL. CELL 9:513-522(1998).
DR EMBL: U73123; G2905895; -.
SO SEQUENCE 552 AA; 62723 MW; 898CFC0C CRC32;

Query Match 64.98; Score 61; DB 5; Length 552;
Best Local Similarity 50.08; Pred. No. 4.52e-01;
Matches 5; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 270 VCNPEGPPWV 279
QY 2 ICADPSQKWV 11

RESULT 21
ID 067634 PRELIMINARY; PRT; 203 AA.
AC 067634;
DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
DE 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE ECO Q PROTEIN (FRAGMENT).
OS GALILD HERPESVIRUS TYPE 1.
OC VIRUSES; DSDNA VIRUSES; NO RNA STAGE; HERPESVIRIDAE;
OC ALPHAHERPESVIRINAE; VARICELLOVIRUS.
RN [1]
RP SEQUENCE FROM N.A.
RX STRAIN-GA;
RX MEDLINE: 96074534.
RA PENG Q., ZENG M., BHUTIAN Z.A., UBUKATA E., TANAKA A., NONOYAMA M.,
RA SHIRAZI Y.;
RT "Isolation and characterization of Marek's disease virus (MDV) cDNAs
RT mapping to the BamHI-12, BamHI-Q2, and BamHI-L fragments of the MDV
RT genome from lymphoblastoid cells transformed and persistently infected
RT with MDV."
RL VIROLOGY 213:590-599(1995).
DR EMBL: U34966; G1185444; -.
DR PFAM: PF00048; 118; 1.
DT NON_TER 1
SO SEQUENCE 203 AA; 23132 MW; 887D04C3 CRC32;

Query Match 62.88; Score 59; DB 14; Length 203;
Best Local Similarity 54.58; Pred. No. 1.13e+00;
Matches 6; Conservative 1; Mismatches 4; Indels 0; Gaps 0;

Db 145 VCVDPPEAPWV 155
QY 2 ICADPSQKWV 12

RESULT 22
ID P78423 PRELIMINARY; PRT; 397 AA.
AC P78423; 000672;
DT 01-MAY-1997 (TREMBLREL. 03, CREATED)
DT 01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CX3C CHEMOKINE PRECURSOR.
GN A-152E5.2.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;

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OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 97177111.
RA BAZAN J.F., BACON K.B., HARDIMAN G., WANG W., SOO K., ROSSI D.,
RA GREAVES D.R., ZLOTNIK A., SCHALL T.J.;
RT "A new class of membrane-bound chemokine with a CX3C motif."
RL NATURE 385:640-644(1997).
RN [2]
RP SEQUENCE FROM N.A.
RA ADAMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRMANN J., MASON T.M.,
RA BRANDON R., KIM U.J., KERLAVAGE A.R., VENTER J.C.;
RT "Homo sapiens Chromosome 16 BAC clone C1987SK-A-152E5."
RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: U91835; G1899259; -.
DR EMBL: U84487; G1888523; -.
DR PFAM: AC004382; G3252821; -.
DR PFAM: PF00048; 118; 1.
KW SIGNAL.
FT CHAIN 1 24 POTENTIAL.
FT CHAIN 25 397 CX3C CHEMOKINE.
SO SEQUENCE 397 AA; 42202 MW; C8093D7D CRC32;

Query Match 62.88; Score 59; DB 4; Length 397;
Best Local Similarity 60.08; Pred. No. 1.13e+00;
Matches 6; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 73 FCADPKQWV 82
QY 2 ICADPSQKWV 11

RESULT 23
ID 073912 PRELIMINARY; PRT; 104 AA.
AC 073912;
DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
DT 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
DE K60 PROTEIN PRECURSOR.
GN K60.
OS GALUS GALLUS (CHICKEN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ARCHOSAURIA; AVES;
OC NEOGNATHAE; GALLIFORMES; PHASIANIDAE; PHASIANINAE; GALLUS.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-MACROPHAGE LIKE;
RA STICK C.;
RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: Y14971; E1295103; -.
KW SIGNAL.
FT CHAIN 1 20 POTENTIAL.
FT CHAIN 21 104 K60 PROTEIN.
SO SEQUENCE 104 AA; 11199 MW; 40C2EF8A CRC32;

Query Match 61.78; Score 58; DB 13; Length 104;
Best Local Similarity 54.58; Pred. No. 1.78e+00;
Matches 6; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

Db 75 EVCLDPTAPWV 85
QY 1 EICADPSQKWV 11

RESULT 24
ID 070460 PRELIMINARY; PRT; 108 AA.
AC 070460;
DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
DT 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
DE EBI-1 LIGAND CHEMOKINE.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCIROGNATHI; MORIDAE; MORINAE; MUS.

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RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=LYMPHOID;
RA NGO V.N., TANG H.L., CYSTER J.G.;
RL J. EXP. MED. 0:0-0(1998);
DR EMBL: AF059208; G3068765; -
SQ SEQUENCE 108 AA; 11911 MW; E86C4466 CRC32;

Query Match
Best Local Similarity 50.0%; Score 58; DB 11; Length 108;
Matches 6; Conservative 3; Mismatches 3; Indels 0; Gaps 0;

Db 73 QICAPDPQWVD 84
:11111111:
QY 1 EICADPSQKWVQ 12

RESULT 25
ID 043927; PRELIMINARY; PRT; 109 AA.
AC 043927;
DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CXC CHEMOKINE PRECURSOR.
GN BCA-1.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
[1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 98130629.
RA LEGIER D.F., LOETSCHER M., STUBER ROOS R., CLARK-LEWIS I.,
RA BAGGIOLOINI M., MOSER B.;
RT "B cell-attracting chemokine 1, a human CXC chemokine expressed in
RT lymphoid tissues, selectively attracts B lymphocytes via BLR1/CXCR5.";
RL J. EXP. MED. 187:655-660(1998).
[2]
RN RP SEQUENCE FROM N.A.
RX MEDLINE: 98146056.
RA GUNN M.D., NGO V.N., ANSEL K.M., EKLAND E.H., CYSTER J.G.,
RA WILLIAMS L.T.;
RT "A B-cell-homing chemokine made in lymphoid follicles activates
RT Buritt's lymphoma receptor-1.";
RL NATURE 391:795-803(1998).
[3]
RN RP SEQUENCE FROM N.A.
RA NAPOLITANO M., SPINETTI G., GAETANO C., CAPOGROSSI C.M.;
RA SUBMITTED (OCT-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RL EMBL: AJ002211; E1249325; -
DR EMBL: AF044197; G2911376; -
DR EMBL: AF029894; G3169814; -
KW SIGNAL.
FT SIGNAL. 1 22 POTENTIAL.
FT CHAIN 23 109 POTENTIAL.
SQ SEQUENCE 109 AA; 12664 MW; BE5A46BC CRC32;

Query Match
Best Local Similarity 45.5%; Score 58; DB 4; Length 109;
Matches 5; Conservative 2; Mismatches 4; Indels 0; Gaps 0;

Db 75 VCVDPAEWIQ 85
:11111111:
QY 2 ICADPSQKWVQ 12

RESULT 26
ID 065737; PRELIMINARY; PRT; 307 AA.
AC 065737;
DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
DE BETA-GALACTOSIDASE (EC 3.2.1.23) (LACTASE) (FRAGMENT).
OS CICR ARLETINUM (CHICKPEA) (GARBANCO).

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OC EUKARYOTA; VIRIDIPLANTAE; CHAROPHYTA/EMBRYOPHYTA GROUP; EMBRYOPHYTA;
OC TRACHEOPHYTA; EUPHYLOPHYTES; SPERMATOPHYTA; MAGNOLIOPHYTA;
OC EUDICOTYLEDONS; ROSIDAE; FABALES; FABACEAE; PAPILIONOIDEAE; CICR.
[1]
RP SEQUENCE FROM N.A.
RC STRAIN=CV. CASTELLANA; TISSUE=ETIOLATED EPICOTYLS;
RA ESTEBAN R., DOPICO B., LABRADOR E.;
RA SUBMITTED (APR-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -1- CATALYTIC ACTIVITY: HYDROLYSIS OF TERMINAL, NON-REDUCING
CC BETA-D-GALACTOSE RESIDUES IN BETA-D-GALACTOSIDES.
DR EMBL: AJ005043; E1285876; -
KW HYDROLASE; GLYCOSIDASE.
FT NON_TER 1 1.
SQ SEQUENCE 307 AA; 33486 MW; B1E5B7D CRC32;

Query Match
Best Local Similarity 62.5%; Score 57; DB 10; Length 307;
Matches 5; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 266 CGOPTQKW 273
:11111111:
QY 3 CADPSQKW 10

RESULT 27
ID 065736; PRELIMINARY; PRT; 730 AA.
AC 065736;
DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE BETA-GALACTOSIDASE (EC 3.2.1.23) (LACTASE).
OS CICR ARLETINUM (CHICKPEA) (GARBANCO).
OC EUKARYOTA; VIRIDIPLANTAE; CHAROPHYTA/EMBRYOPHYTA GROUP; EMBRYOPHYTA;
OC TRACHEOPHYTA; EUPHYLOPHYTES; SPERMATOPHYTA; MAGNOLIOPHYTA;
OC EUDICOTYLEDONS; ROSIDAE; FABALES; FABACEAE; PAPILIONOIDEAE; CICR.
[1]
RN RP SEQUENCE FROM N.A.
RC STRAIN=CV. CASTELLANA; TISSUE=ETIOLATED EPICOTYLS;
RA ESTEBAN R., DOPICO B., LABRADOR E.;
RA SUBMITTED (SEP-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -1- CATALYTIC ACTIVITY: HYDROLYSIS OF TERMINAL, NON-REDUCING BETA-D-
CC GALACTOSE RESIDUES IN BETA-D-GALACTOSIDES.
CC -1- SIMILARITY: BELONGS TO FAMILY 35 OF GLYCOSYL HYDROLASES.
DR EMBL: AJ005042; E1321550; -
DR PROSITE: PS01182; GLYCOSYL_HYDROL_F35; 1.
KW ACT_SITE 187 187 PROTON DONOR (BY SIMILARITY).
FT ACT_SITE 187 187
SQ SEQUENCE 730 AA; 81300 MW; D1C226FF CRC32;

Query Match
Best Local Similarity 60.6%; Score 57; DB 10; Length 730;
Matches 5; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 689 CGOPTQKW 696
:11111111:
QY 3 CADPSQKW 10

RESULT 28
ID 097013; PRELIMINARY; PRT; 859 AA.
AC 097013;
DT 01-FEB-1997 (TREMBLREL. 02, CREATED)
DT 01-FEB-1997 (TREMBLREL. 02, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE ENVELOPE GLYCOPROTEIN (FRAGMENT).
GN ENV.
OS HUMAN IMMUNODEFICIENCY VIRUS TYPE 1 (HIV-1).
OC VIRUSES; RETROID VIRUSES; RETROVIRIDAE; LENTIVIRUS.
[1]
RN RP SEQUENCE FROM N.A.
RX MEDLINE: 96190564.
RA GAO F., MORRISON S.G., ROBERTSON D.L., THORNTON C.L., CRAIG S.,
RA KARLSSON G., SODROSKI J., MORCADO M., GALVINO-CASTRO B., BRIESEN H.,

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RA BEDDOWS S., WEBER J., SHARP P.M., SHAW G.M., HAHN B.H.;
 RT "Molecular cloning and analysis of functional envelope genes from
 RT human immunodeficiency virus type 1 sequence subtypes A through G. The
 RT WHO and NIAID Networks for HIV Isolation and Characterization";
 RL J. VIROL. 70:1651-1657(1996).
 RN [2]
 RP SEQUENCE FROM N.A.
 RA ALLEN E.E.;
 RL SUBMITTED (MAY-1995) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: U27443; G1495977; -
 DR PFAM: PF00516; GP120; 1.
 DR PFAM: PF00517; GP41; 1.
 KW ENVELOPE PROTEIN.
 FT NONTER 1
 FT SEQUENCE 859 AA; 97274 MW; 15339DB3 CRC32;
 Query Match 60.6%; Score 57; DB 14; Length 859;
 Best Local Similarity 50.0%; Pred. No. 2.78e+00;
 Matches 5; Conservative 3; Mismatches 2; Indels 0; Gaps 0;
 Db 31 IC5AAEEKV 40
 ID 11: : : : :
 QY 2 ICADPSQKW 11
 RESULT 29
 ID 098157; PRELIMINARY; PRT; 94 AA.
 AC 098157;
 DT 01-FEB-1997 (TREMBLREL. 02, CREATED)
 DT 01-FEB-1997 (TREMBLREL. 02, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE WIMP-1B.
 OS KAPOSI'S SARCOMA-ASSOCIATED HERPES-LIKE VIRUS,
 OS AND KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS,
 OC VIRUSES; DSDNA VIRUSES, NO RNA STAGE; HERPESVIRIDAE;
 OC GAMMAHERPESVIRINAE; RHADINOVIRUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA NICHOLAS J., RUVOLO V.R., BURNS W.H., SANFORD G., WAN X., CIURO D.,
 RA HENDRICKSON S., GUO H.G., HAYWARD G.S., REITZ M.S.;
 RL SUBMITTED (SEP-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 97094384.
 RA MOORE P.S., BASIOFF C., WEISS R.A., CHANG Y.;
 RT "Molecular mimicry of human cytokine and cytokine response pathway
 RT genes by KSHV";
 RL SCIENCE 274:1739-1744(1996).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 97121480.
 RA RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
 RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
 RT "Nucleotide sequence of the kaposi sarcoma-associated herpesvirus
 RT (HHV8).";
 RL PROC. NATL. ACAD. SCI. U.S.A. 93:14862-14867(1996).
 RN [4]
 RP SEQUENCE FROM N.A.
 RA RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
 RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
 RL SUBMITTED (OCT-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [5]
 RP SEQUENCE FROM N.A.
 RA RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
 RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
 RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [6]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 97296220.
 RA NEIPEL F., ALBRECHT J.C., FLECKENSTEIN B.;
 RT "Cell-homologous genes in the Kaposi's sarcoma-associated rhadinovirus
 RT human herpesvirus 8: determinants of its pathogenicity?";
 RL J. VIROL. 71:4187-4192(1997).

RN [7]
 RP SEQUENCE FROM N.A.
 RA SUN R., LIN S.-F., MILLER G.;
 RL SUBMITTED (SEP-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: U67775; G1562496; -
 DR EMBL: U75698; G1718264; -
 DR EMBL: U93872; G246517; -
 DR EMBL: U71365; G3551760; -
 DR PFAM: PF00048; 118; 1.
 KW HYPOTHETICAL PROTEIN.
 SO SEQUENCE 94 AA; 10486 MW; 91312200 CRC32;
 Query Match 59.6%; Score 56; DB 14; Length 94;
 Best Local Similarity 54.5%; Pred. No. 4.33e+00;
 Matches 6; Conservative 2; Mismatches 3; Indels 0; Gaps 0;
 Db 72 OVCADKSKDW 82
 ID 081100
 QY 1 EICADPSQKW 11
 RESULT 30
 ID 081100; PRELIMINARY; PRT; 724 AA.
 AC 081100;
 DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE BETA-GALACTOSIDASE (EC 3.2.1.23) (LACTASE) PRECURSOR (EC 3.2.1.23)
 DE (LACTASE).
 DE BGL4.
 OS LYCOPERSICON ESCULENTUM (TOMATO).
 OS EUPHORBIA: VIRIDIPHYTES; CHAROPHYTA/EMBRYOPHYTA; EMBRYOPHYTA;
 OC TRACHEOPHYTA; EUPHYLOPHYTES; SPERMATOPHYTA; MAGNOLIOPHYTA;
 OC EUDICOTYLEDONS; ASTERIDAE; SOLANACEAE; SOLANALES; SOLANACEAE; SOLANUM.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX STRAIN-ROUTERS; TISSUE-TOMATO FRUIT;
 RX MEDLINE: 98289087.
 RA SMITH D.L., STARRETT D.A., GROSS K.C.;
 RT "A gene coding for tomato fruit beta-galactosidase II is expressed
 RT during fruit ripening. Cloning, characterization, and expression
 RT pattern";
 RL PLANT PHYSIOL. 117:417-423(1998).
 CC -I- CATALYTIC ACTIVITY: HYDROLYSIS OF TERMINAL, NON-REDUCING BETA-D-
 CC GALACTOSE RESIDUES IN BETA-D-GALACTOSIDES.
 CC -I- SIMILARITY: BELONGS TO FAMILY 35 OF GLYCOSYL HYDROLASES.
 DR EMBL: AF020390; G3299896; -
 DR PROSITE: PS01182; GLYCOSYL_HYDROL_F35; 1.
 DR TRANSIT PEPTIDE; HYDROLASE.
 KW TRANSIT 1
 KW ACT_SITE 181 23
 FT ACT_SITE 181 23
 FT PROTON DONOR (BY SIMILARITY).
 SO SEQUENCE 724 AA; 80513 MW; 4BC4090F CRC32;
 Query Match 59.6%; Score 56; DB 10; Length 724;
 Best Local Similarity 62.5%; Pred. No. 4.33e+00;
 Matches 5; Conservative 3; Mismatches 0; Indels 0; Gaps 0;
 Db 682 CGOPSORW 689
 ID 11: : : : :
 QY 3 CADPSQKW 10

Search completed: Thu Apr 1 07:37:27 1999
 Job time : 39 secs.

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[W] [O] [R] [E] [H]

(TM)

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Msrch_dp protein - protein database search, using Smith-Waterman algorithm

Run on: Thu Apr 1 07:40:52 1999; MasPar time 2.82 Seconds

Tabular output not generated. 68.919 Million cell updates/sec

Title: >US-08-927-939-12
Description: (1-12) from US08927939.pep
Perfect Score: 92
Sequence: 1 EICADPSEWVQ 12

Scoring table: PAM 150
Gap 15

Searched: 131922 seqs, 16180660 residues

Post-processing: Minimum Match 0%
Listing first 100 summaries

Database: a-geneseq32
1:part1 2:part2 3:part3 4:part4 5:part5 6:part6 7:part7
8:part8 9:part9 10:part10 11:part11 12:part12 13:part13
14:part14 15:part15 16:part16 17:part17 18:part18
19:part19 20:part20 21:part21 22:part22 23:part23
24:part24 25:part25 26:part26 27:part27 28:part28
29:part29

Statistics: Mean 18.207; Variance 69.464; scale 0.262

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description	Pred. No.	
1	90	97.8	69	7	R38940	LD78 Phe28>Glu, Gln48	7.79e-02
2	90	97.8	69	7	R38926	LD78 Gln48>Glu.	7.79e-02
3	87	94.6	63	7	R38974	NI-6 LD78 Pro7>Ser.	1.51e-01
4	87	94.6	64	7	R39081	LD78 C65-69.	1.51e-01
5	87	94.6	66	7	R38948	NI-3 LD78.	1.51e-01
6	87	94.6	66	7	R38951	NI-3 LD78 Thr15>Phe.	1.51e-01
7	87	94.6	69	7	R38934	LD78 Ile24>Thr.	1.51e-01
8	87	94.6	69	7	R39104	LD78 Pro37>Ala.	1.51e-01
9	87	94.6	69	7	R39089	LD78 Gln33>Ser.	1.51e-01
10	87	94.6	69	7	R39091	LD78 Ser31>Ala.	1.51e-01
11	87	94.6	69	7	R38982	LD78 Lys60>Ser.	1.51e-01
12	87	94.6	69	7	R38979	LD78 Arg45>Ser.	1.51e-01
13	87	94.6	69	7	R38971	LD78 Ala3>Ser.	1.51e-01
14	87	94.6	69	7	R38972	LD78 Ala4>Ser.	1.51e-01
15	87	94.6	69	7	R38978	LD78 Lys44>Ser.	1.51e-01
16	87	94.6	69	7	R38977	LD78 Phe23>Ala.	1.51e-01
17	87	94.6	69	7	R38961	LD78 Asp5>Arg.	1.51e-01
18	87	94.6	69	7	R38967	LD78 Arg17>Glu, Gln18	1.51e-01

19	87	94.6	69	7	R38968	LD78 Leu67>Glu.	1.51e-01
20	87	94.6	69	7	R38975	LD78 Phe28>Tyr.	1.51e-01
21	87	94.6	69	7	R38973	LD78 Leu67>Ala.	1.51e-01
22	87	94.6	69	7	R38965	LD78 Ala3>Glu.	1.51e-01
23	87	94.6	69	7	R38964	LD78 Leu2>Glu.	1.51e-01
24	87	94.6	69	7	R38953	LD78 Asp26>Ser.	1.51e-01
25	87	94.6	69	7	R38970	LD78 Leu2>Ala.	1.51e-01
26	87	94.6	69	7	R38969	LD78 Ser46>Ala.	1.51e-01
27	87	94.6	69	7	R38976	LD78 Asp5>Ser.	1.51e-01
28	87	94.6	69	7	R39092	LD78 Ser32>Ala.	1.51e-01
29	87	94.6	69	7	R39090	LD78 Tyr61>Ala.	1.51e-01
30	87	94.6	69	7	R39088	LD78 Ser1>Ala.	1.51e-01
31	87	94.6	69	7	R39096	LD78 Ser13>Ala.	1.51e-01
32	87	94.6	69	7	R38960	LD78 Gln18>Ser.	1.51e-01
33	87	94.6	69	7	R39126	LD78 Lys60>Asp.	1.51e-01
34	87	94.6	69	7	R39127	LD78 Tyr61>Asp.	1.51e-01
35	87	94.6	69	7	R38963	LD78 Gln29>Arg.	1.51e-01
36	87	94.6	69	7	R38955	LD78 Phe28>Ala.	1.51e-01
37	87	94.6	69	7	R38993	LD78 Leu42>Ala.	1.51e-01
38	87	94.6	69	7	R39095	LD78 Val62>Ala.	1.51e-01
39	87	94.6	69	7	R39110	LD78 Pro7>Ala.	1.51e-01
40	87	94.6	69	7	R39109	LD78 Thr43>Ala.	1.51e-01
41	87	94.6	69	7	R39108	LD78 Gln21>Ser.	1.51e-01
42	87	94.6	69	7	R39097	LD78 Ser18>Ala.	1.51e-01
43	87	94.6	69	7	R39099	LD78 Ser35>Ala.	1.51e-01
44	87	94.6	69	7	R38983	LD78 Asp64>Ser.	1.51e-01
45	87	94.6	69	7	R39087	LD78 Ala69>Ser.	1.51e-01
46	87	94.6	69	7	R39086	LD78 Gln66>Ser.	1.51e-01
47	87	94.6	69	7	R39098	LD78 Phe20>Ala.	1.51e-01
48	87	94.6	69	7	R39103	LD78 Ile19>Ala.	1.51e-01
49	87	94.6	69	7	R39102	LD78 Tyr14>Ala.	1.51e-01
50	87	94.6	69	7	R39101	LD78 Ser68>Ala.	1.51e-01
51	87	94.6	69	7	R39082	LD78 Asp26>Ala.	1.51e-01
52	87	94.6	69	7	R39083	LD78 Asp26>Ala.	1.51e-01
53	87	94.6	69	7	R39106	LD78 Val39>Ala.	1.51e-01
54	87	94.6	69	7	R39107	LD78 Thr6>Ala.	1.51e-01
55	87	94.6	69	7	R39133	LD78 Ser31>Glu.	1.51e-01
56	87	94.6	69	7	R38957	LD78 Ile40>Ala.	1.51e-01
57	87	94.6	69	7	R39117	LD78 Ala25>Ser.	1.51e-01
58	87	94.6	69	7	R39115	LD78 Thr15>Ala.	1.51e-01
59	87	94.6	69	7	R39105	LD78 Gly38>Ala.	1.51e-01
60	87	94.6	69	7	R38956	LD78 Ile24>Ala.	1.51e-01
61	87	94.6	69	7	R39141	LD78 Arg45>Glu.	1.51e-01
62	87	94.6	69	7	R39085	LD78 Leu65>Ala.	1.51e-01
63	87	94.6	69	7	R39084	LD78 Lys36>Ser.	1.51e-01
64	87	94.6	69	7	R39145	LD78 Ile24>Val.	1.51e-01
65	87	94.6	69	7	R38958	LD78 Arg47>Ser.	1.51e-01
66	87	94.6	69	7	R38932	LD78 Asp26>Ala.	1.51e-01
67	87	94.6	69	7	R39134	LD78 Ile40>Asn.	1.51e-01
68	87	94.6	69	7	R39140	LD78 Lys44>Glu.	1.51e-01
69	87	94.6	69	7	R38931	LD78 Phe23>Asn.	1.51e-01
70	87	94.6	69	7	R39146	LD78 Arg17>Glu.	1.51e-01
71	87	94.6	69	7	R39130	LD78 Arg17>Ser.	1.51e-01
72	87	94.6	69	7	R39139	LD78 Lys36>Glu.	1.51e-01
73	87	94.6	69	7	R38939	LD78 Ile24>Asn.	1.51e-01
74	87	94.6	69	7	R39128	LD78 Phe40>Asp.	1.51e-01
75	87	94.6	69	7	R38935	LD78 Arg17>Ser.	1.51e-01
76	87	94.6	69	7	R38929	LD78 Phe28>Ser.	1.51e-01
77	87	94.6	69	7	R39130	LD78 Ser68>Glu.	1.51e-01
78	87	94.6	69	7	R39135	LD78 Asn22>Ser.	1.51e-01
79	87	94.6	69	7	R39135	LD78 Leu42>Asn.	1.51e-01
80	87	94.6	70	7	R39136	LD78 Cys10, Cys11 > C	1.51e-01
81	87	94.6	70	7	R38949	Ala-Ser>Pro LD78.	1.51e-01
82	87	94.6	70	5	R26214	Macrophage inflammatory	1.51e-01
83	87	94.6	70	13	R45917	Human MIP 1-alpha.	1.51e-01
84	87	94.6	71	7	R38946	Ser-Ala-LD78.	1.51e-01
85	87	94.6	72	7	R38947	Leu-Ser-Ala-Ser1>Pro	1.51e-01
86	87	94.6	72	7	R38962	LD78 Arg17>Glu, Gln18	1.51e-01
87	87	94.6	72	7	R38962	LD78 Arg17>Glu, Gln18	1.51e-01
88	87	94.6	72	7	R38962	LD78 Arg17>Glu, Gln18	1.51e-01
89	87	94.6	72	7	R38962	LD78 Arg17>Glu, Gln18	1.51e-01
90	87	94.6	72	7	R38962	LD78 Arg17>Glu, Gln18	1.51e-01
91	87	94.6	72	7	R38950	Leu-Ser-Ala-Ser1>Pro	1.51e-01

92	87	94.6	91.4	R22711	Human MIP-1 alpha	1.51e-01
93	87	94.6	92.12	R62618	Variant stem cell inh	1.51e-01
94	87	94.6	92.7	R36769	MIP-1alpha.	1.51e-01
95	87	94.6	92.1	R04221	Protein encoded by PA	1.51e-01
96	87	94.6	93.13	R70797	MIP-1-alpha.	1.51e-01
97	87	94.6	93.12	R62616	Stem cell inhibitor,	1.51e-01
98	87	94.6	93.2	R15553	Human Stem Cell Inhib	1.51e-01
99	87	94.6	93.3	R16915	LD78beta.	1.51e-01
100	87	94.6	93.12	R62617	Variant stem cell inh	1.51e-01

ALIGNMENTS

RESULT 1
ID R38940 standard; Protein; 69 AA.

AC R38940;
DE 23-NOV-1993 (first entry)
LD78 Phe28>Glu, Glu48>Glu.
KW SCI: stem cell inhibition; LD78; ACR2; MIP-1alpha;
KW macrophage inflammatory protein; multimer; tumour therapy;
KW psoriasis; hyperproliferation.
OS Homo sapiens.
PN WO9313206-A.
PD 08-JUL-1993.
PE 23-DEC-1992; G02390.
PR 23-DEC-1991; GB-027319.
PR 14-OCT-1992; GB-021587.
PA (BRBI-) BRITISH BIO-TECHNOLOGY LTD.
PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
PI Hunter MG;
DR WPI: 93-227322/28.
PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
PT alpha - unable to form stable multimer higher than dodecamer,
PT providing better tissue penetration
PS Example 15; Page 55; 294pp; English.
OS Analogues of natural stem cell inhibitors, such as LD78 and MIP-
CC 1alpha, having mutations to prevent or reduce multimer formation
CC beyond certain stages (e.g. dodecamer), have improved solution
CC properties leading to enhanced productivity and greater therapeutic
CC utility as stem cell protective agents. The analogues may be used
CC in tumour therapy, psoriasis or other diseases involving hyper-
CC proliferative stem cells.
CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
CC Glu18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
CC analogues correspond to the pref. LD78 analogues.
SQ Sequence 69 AA;

Query Match 97.8%; Score 90; DB 7; Length 69;
Best Local Similarity 91.7%; Pred. No. 7.79e-02;
Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 48 evcadpseewq 59
1 EICADPSEEWQ 12

RESULT 2
ID R38926 standard; Protein; 69 AA.
AC R38926;
DE 23-NOV-1993 (first entry)
LD78 Glu48>Glu.
KW SCI: stem cell inhibition; LD78; ACR2; MIP-1alpha;
KW macrophage inflammatory protein; multimer; tumour therapy;
KW psoriasis; hyperproliferation.
OS Homo sapiens.
PN WO9313206-A.
PD 08-JUL-1993.
PE 23-DEC-1992; G02390.
PR 23-DEC-1991; GB-027319.
PR 14-OCT-1992; GB-021587.
PA (BRBI-) BRITISH BIO-TECHNOLOGY LTD.
PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
PI Hunter MG;

DR WPI: 93-227322/28.
PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
PT alpha - unable to form stable multimer higher than dodecamer,
PT providing better tissue penetration
PS Example 1; Page 48-50; 294pp; English.
OS Analogues of natural stem cell inhibitors, such as LD78 and MIP-
CC 1alpha, having mutations to prevent or reduce multimer formation
CC beyond certain stages (e.g. dodecamer), have improved solution
CC properties leading to enhanced productivity and greater therapeutic
CC utility as stem cell protective agents. The analogues may be used
CC in tumour therapy, psoriasis or other diseases involving hyper-
CC proliferative stem cells.
CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
CC Glu18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
CC analogues correspond to the pref. LD78 analogues.
SQ Sequence 69 AA;

Query Match 97.8%; Score 90; DB 7; Length 69;

Best Local Similarity 91.7%; Pred. No. 7.79e-02;
Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 48 evcadpseewq 59
1 EICADPSEEWQ 12

RESULT 3
ID R38974 standard; Protein; 63 AA.
AC R38974;
DE 23-NOV-1993 (first entry)
LD78 Phe28>Glu, Glu48>Glu.
KW SCI: stem cell inhibition; LD78; ACR2; MIP-1alpha;
KW macrophage inflammatory protein; multimer; tumour therapy;
KW psoriasis; hyperproliferation.
OS Homo sapiens.
PN WO9313206-A.
PD 08-JUL-1993.
PE 23-DEC-1992; G02390.
PR 23-DEC-1991; GB-027319.
PR 14-OCT-1992; GB-021587.
PA (BRBI-) BRITISH BIO-TECHNOLOGY LTD.
PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
PI Hunter MG;
DR WPI: 93-227322/28.
PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
PT alpha - unable to form stable multimer higher than dodecamer,
PT providing better tissue penetration
PS Example 49; Page 68; 294pp; English.
OS Analogues of natural stem cell inhibitors, such as LD78 and MIP-
CC 1alpha, having mutations to prevent or reduce multimer formation
CC beyond certain stages (e.g. dodecamer), have improved solution
CC properties leading to enhanced productivity and greater therapeutic
CC utility as stem cell protective agents. The analogues may be used
CC in tumour therapy, psoriasis or other diseases involving hyper-
CC proliferative stem cells.
CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
CC Glu18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
CC analogues correspond to the pref. LD78 analogues.
SQ Sequence 63 AA;

Query Match 94.6%; Score 87; DB 7; Length 63;

Best Local Similarity 83.3%; Pred. No. 1.51e-01;
Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 42 evcadpseewq 53
1 EICADPSEEWQ 12

RESULT 4
ID R39081 standard; Protein; 64 AA.
AC R39081;
DE 23-NOV-1993 (first entry)

DE LD78 C65-69.
 KM SCI; stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KM macrophage inflammatory protein; multimer; tumour therapy;
 KM psoriasis; hyperproliferation.
 OS Homo sapiens.
 PN WO9313206-A.
 PD 08-JUL-1993.
 PF 23-DEC-1992; G02390.
 PR 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BRBI-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG; 93-227322/28.
 DR WPI; 93-227322/28.
 PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 PT alpha - unable to form stable multimer higher than dodecamer,
 PT providing better tissue penetration
 PS Example 59; Page 71; 294pp; English.
 OS Analogues of natural stem cell inhibitors, such as LD78 and MIP-
 CC 1alpha, having mutations to prevent or reduce multimer formation
 CC beyond certain stages (e.g. dodecamer), have improved solution
 CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
 CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
 CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 64 AA.

Query Match 94.6%; Score 87; DB 7; Length 64;
 Best Local Similarity 83.3%; Pred. No. 1.51e-01;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
 Db 48 qvcadpsewvq 59
 :|||||
 Qy 1 EICADPSEWVQ 12

RESULT 5
 ID R38948 standard; Protein; 66 AA.
 AC R38948;
 DT 23-NOV-1993 (first entry)
 DE NI-3 LD78.
 KM SCI; stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KM macrophage inflammatory protein; multimer; tumour therapy;
 KM psoriasis; hyperproliferation.
 OS Homo sapiens.
 PN WO9313206-A.
 PD 08-JUL-1993.
 PF 23-DEC-1992; G02390.
 PR 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BRBI-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG; 93-227322/28.
 DR WPI; 93-227322/28.
 PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 PT alpha - unable to form stable multimer higher than dodecamer,
 PT providing better tissue penetration
 PS Example 23; Page 58; 294pp; English.
 OS Analogues of natural stem cell inhibitors, such as LD78 and MIP-
 CC 1alpha, having mutations to prevent or reduce multimer formation
 CC beyond certain stages (e.g. dodecamer), have improved solution
 CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
 CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
 CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 66 AA.

Query Match 94.6%; Score 87; DB 7; Length 66;
 Best Local Similarity 83.3%; Pred. No. 1.51e-01;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
 Db 45 qvcadpsewvq 56
 :|||||
 Qy 1 EICADPSEWVQ 12

RESULT 6
 ID R38951 standard; Protein; 66 AA.
 AC R38951;
 DT 23-NOV-1993 (first entry)
 DE NI-3 LD78 Thr15>Phe.
 KM SCI; stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KM macrophage inflammatory protein; multimer; tumour therapy;
 KM psoriasis; hyperproliferation.
 OS Homo sapiens.
 PN WO9313206-A.
 PD 08-JUL-1993.
 PF 23-DEC-1992; G02390.
 PR 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BRBI-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG; 93-227322/28.
 DR WPI; 93-227322/28.
 PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 PT alpha - unable to form stable multimer higher than dodecamer,
 PT providing better tissue penetration
 PS Example 26; Page 59; 294pp; English.
 OS Analogues of natural stem cell inhibitors, such as LD78 and MIP-
 CC 1alpha, having mutations to prevent or reduce multimer formation
 CC beyond certain stages (e.g. dodecamer), have improved solution
 CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
 CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
 CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 66 AA.

Query Match 94.6%; Score 87; DB 7; Length 66;
 Best Local Similarity 83.3%; Pred. No. 1.51e-01;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
 Db 45 qvcadpsewvq 56
 :|||||
 Qy 1 EICADPSEWVQ 12

RESULT 7
 ID R38934 standard; Protein; 69 AA.
 AC R38934;
 DT 23-NOV-1993 (first entry)
 DE LD78 Ile24>Tyr.
 KM SCI; stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KM macrophage inflammatory protein; multimer; tumour therapy;
 KM psoriasis; hyperproliferation.
 OS Homo sapiens.
 PN WO9313206-A.
 PD 08-JUL-1993.
 PF 23-DEC-1992; G02390.
 PR 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BRBI-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG; 93-227322/28.
 DR WPI; 93-227322/28.
 PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 PT alpha - unable to form stable multimer higher than dodecamer,
 PT providing better tissue penetration

PS Example 9: Page 53: 294pp: English.
 CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-1alpha, having mutations to prevent or reduce multimer formation
 CC beyond certain stages (e.g. dodecamer), have improved solution
 CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
 CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
 CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 69 AA;

Db 48 qvcadpsewq 59
 :|||||||||
 QY 1 EICADPSEWQ 12

Query Match 94.6%; Score 87; DB 7; Length 69;
 Best Local Similarity 83.3%; Pred. No. 1.51e-01;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

RESULT 8
 ID R39104 standard; Protein; 69 AA.
 AC R39104;
 DT 23-NOV-1993 (first entry)
 DE LD78 Pro37>Ala.
 KW SCI; stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KM macrophage inflammatory protein; multimer; tumour therapy;
 OS psoriasis; hyperproliferation.
 PN Homo sapiens.
 PD WO9313206-A.
 PT 08-JUL-1993.
 PR 23-DEC-1992; G02390.
 RA 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BRBT-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG;
 PT WPI: 93-227322/28.
 DR Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 PT alpha - unable to form stable multimer higher than dodecamer,
 PT providing better tissue penetration
 PS Example 82; Page 79; 294pp: English.
 CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-
 CC 1alpha, having mutations to prevent or reduce multimer formation
 CC beyond certain stages (e.g. dodecamer), have improved solution
 CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
 CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
 CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 69 AA;

OS Homo sapiens.
 PN WO9313206-A.
 PD 08-JUL-1993.
 PR 23-DEC-1992; G02390.
 PR 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BRBT-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG;
 PT WPI: 93-227322/28.
 DR Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 PT alpha - unable to form stable multimer higher than dodecamer,
 PT providing better tissue penetration
 PS Example 67; Page 74; 294pp: English.
 CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-
 CC 1alpha, having mutations to prevent or reduce multimer formation
 CC beyond certain stages (e.g. dodecamer), have improved solution
 CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
 CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
 CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 69 AA;

Query Match 94.6%; Score 87; DB 7; Length 69;
 Best Local Similarity 83.3%; Pred. No. 1.51e-01;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 48 qvcadpsewq 59
 :|||||||||
 QY 1 EICADPSEWQ 12

RESULT 10
 ID R39091 standard; Protein; 69 AA.
 AC R39091;
 DT 23-NOV-1993 (first entry)
 DE LD78 Ser31>Ala.
 KW SCI; stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KM macrophage inflammatory protein; multimer; tumour therapy;
 OS psoriasis; hyperproliferation.
 PN Homo sapiens.
 PD WO9313206-A.
 PT 08-JUL-1993.
 PR 23-DEC-1992; G02390.
 PR 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BRBT-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG;
 PT WPI: 93-227322/28.
 DR Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 PT alpha - unable to form stable multimer higher than dodecamer,
 PT providing better tissue penetration
 PS Example 69; Page 75; 294pp: English.
 CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-
 CC 1alpha, having mutations to prevent or reduce multimer formation
 CC beyond certain stages (e.g. dodecamer), have improved solution
 CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
 CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
 CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 69 AA;

Query Match 94.6%; Score 87; DB 7; Length 69;
 Best Local Similarity 83.3%; Pred. No. 1.51e-01;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 48 qvcadpseewq 59
 Oy 1 EICADPSEEWQ 12

RESULT 11
 ID R38982 standard; Protein: 69 AA.
 AC R38982;
 DT 23-NOV-1993 (first entry)
 DE LD78 Lys60>Ser.
 KW SCI; stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KW macrophage inflammatory protein; multimer; tumour therapy;
 KW psoriasis; hyperproliferation.
 OS Homo sapiens.
 PN WO9313206-A.
 PD 08-JUL-1993.
 PF 23-DEC-1992; G02390.
 PR 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BBRI-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG;
 PI WPI: 93-227322/28.
 DR Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 PT alpha - unable to form stable multimer higher than dodecamer,
 PT providing better tissue penetration
 PS Example 57; Page 70-71; 294pp; English.
 CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-
 CC 1alpha, having mutations to prevent or reduce multimer formation
 CC beyond certain stages (e.g. dodecamer), have improved solution
 CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
 CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
 CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 69 AA;

Query Match 94.6%; Score 87; DB 7; Length 69;
 Best Local Similarity 83.3%; Pred. No. 1.51e-01;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 48 qvcadpseewq 59
 Oy 1 EICADPSEEWQ 12

RESULT 12
 ID R38979 standard; Protein: 69 AA.
 AC R38979;
 DT 23-NOV-1993 (first entry)
 DE LD78 Arg45>Ser.
 KW SCI; stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KW macrophage inflammatory protein; multimer; tumour therapy;
 KW psoriasis; hyperproliferation.
 OS Homo sapiens.
 PN WO9313206-A.
 PD 08-JUL-1993.
 PF 23-DEC-1992; G02390.
 PR 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BBRI-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG;
 PI WPI: 93-227322/28.
 DR Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 PT alpha - unable to form stable multimer higher than dodecamer,
 PT providing better tissue penetration
 PS Example 54; Page 69-70; 294pp; English.
 CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-
 CC 1alpha, having mutations to prevent or reduce multimer formation
 CC beyond certain stages (e.g. dodecamer), have improved solution

CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
 CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
 CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 69 AA;

Query Match 94.6%; Score 87; DB 7; Length 69;
 Best Local Similarity 83.3%; Pred. No. 1.51e-01;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 48 qvcadpseewq 59
 Oy 1 EICADPSEEWQ 12

RESULT 13
 ID R38971 standard; Protein: 69 AA.
 AC R38971;
 DT 23-NOV-1993 (first entry)
 DE LD78 Ala3>Ser.
 KW SCI; stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KW macrophage inflammatory protein; multimer; tumour therapy;
 KW psoriasis; hyperproliferation.
 OS Homo sapiens.
 PN WO9313206-A.
 PD 08-JUL-1993.
 PF 23-DEC-1992; G02390.
 PR 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BBRI-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG;
 PI WPI: 93-227322/28.
 DR Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 PT alpha - unable to form stable multimer higher than dodecamer,
 PT providing better tissue penetration
 PS Example 46; Page 67; 294pp; English.
 CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-
 CC 1alpha, having mutations to prevent or reduce multimer formation
 CC beyond certain stages (e.g. dodecamer), have improved solution
 CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
 CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
 CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 69 AA;

Query Match 94.6%; Score 87; DB 7; Length 69;
 Best Local Similarity 83.3%; Pred. No. 1.51e-01;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 48 qvcadpseewq 59
 Oy 1 EICADPSEEWQ 12

RESULT 14
 ID R38972 standard; Protein: 69 AA.
 AC R38972;
 DT 23-NOV-1993 (first entry)
 DE LD78 Ala4>Ser.
 KW SCI; stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KW macrophage inflammatory protein; multimer; tumour therapy;
 KW psoriasis; hyperproliferation.
 OS Homo sapiens.
 PN WO9313206-A.
 PD 08-JUL-1993.
 PF 23-DEC-1992; G02390.

PR 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BRBI-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG;
 DR WPI: 93-227322/28.
 PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 PT alpha - unable to form stable multimer higher than dodecamer,
 PT providing better tissue penetration
 PS Example 47; Page 67; 294pp; English.
 CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-1
 CC 1alpha, having mutations to prevent or reduce multimer formation
 CC beyond certain stages (e.g. dodecamer), have improved solution
 CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
 CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
 CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 69 AA;

Query Match 94.6%; Score 87; DB 7; Length 69;
 Best Local Similarity 83.3%; Pred. No. 1.51e-01;

Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

DB 48 gvcadpsewvq 59
 :|||||
 QY 1 EICADPSEWVQ 12

RESULT 15
 ID R38978 standard; Protein; 69 AA.
 AC R38978;
 DT 23-NOV-1993 (first entry)
 DE LD78 Lys44>Ser.
 KW SCI: stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KW macrophage inflammatory protein; multimer; tumour therapy;
 KW psoriasis; hyperproliferation.
 OS Homo sapiens.
 PN WO9313206-A.
 PD 08-JUL-1993.
 PF 23-DEC-1992; G02390.
 PR 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BRBI-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG;
 DR WPI: 93-227322/28.
 PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 PT alpha - unable to form stable multimer higher than dodecamer,
 PT providing better tissue penetration
 PS Example 53; Page 69; 294pp; English.
 CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-1
 CC 1alpha, having mutations to prevent or reduce multimer formation
 CC beyond certain stages (e.g. dodecamer), have improved solution
 CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
 CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
 CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 69 AA;

Query Match 94.6%; Score 87; DB 7; Length 69;
 Best Local Similarity 83.3%; Pred. No. 1.51e-01;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

DB 48 gvcadpsewvq 59
 :|||||
 QY 1 EICADPSEWVQ 12

RESULT 16
 ID R38977 standard; Protein; 69 AA.
 AC R38977;
 DT 23-NOV-1993 (first entry)
 DE LD78 Phe23>Ala.
 KW SCI: stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KW macrophage inflammatory protein; multimer; tumour therapy;
 KW psoriasis; hyperproliferation.
 OS Homo sapiens.
 PN WO9313206-A.
 PD 08-JUL-1993.
 PF 23-DEC-1992; G02390.
 PR 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BRBI-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG;
 DR WPI: 93-227322/28.
 PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 PT alpha - unable to form stable multimer higher than dodecamer,
 PT providing better tissue penetration
 PS Example 52; Page 69; 294pp; English.
 CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-1
 CC 1alpha, having mutations to prevent or reduce multimer formation
 CC beyond certain stages (e.g. dodecamer), have improved solution
 CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
 CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
 CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 69 AA;

Query Match 94.6%; Score 87; DB 7; Length 69;
 Best Local Similarity 83.3%; Pred. No. 1.51e-01;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

DB 48 gvcadpsewvq 59
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 QY 1 EICADPSEWVQ 12

RESULT 17
 ID R38961 standard; Protein; 69 AA.
 AC R38961;
 DT 23-NOV-1993 (first entry)
 DE LD78 Asp5>Arg.
 KW SCI: stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KW macrophage inflammatory protein; multimer; tumour therapy;
 KW psoriasis; hyperproliferation.
 OS Homo sapiens.
 PN WO9313206-A.
 PD 08-JUL-1993.
 PF 23-DEC-1992; G02390.
 PR 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BRBI-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG;
 DR WPI: 93-227322/28.
 PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 PT alpha - unable to form stable multimer higher than dodecamer,
 PT providing better tissue penetration
 PS Example 36; Page 63; 294pp; English.
 CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-1
 CC 1alpha, having mutations to prevent or reduce multimer formation
 CC beyond certain stages (e.g. dodecamer), have improved solution
 CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.

CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
CC analogues correspond to the pref. LD78 analogues.
SQ Sequence 69 AA;

Query Match 94.6%; Score 87; DB 7; Length 69;
Best Local Similarity 83.3%; Pred. No. 1.51e-01;
Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 48 gvcadpseewq 59
:::|||||
QY 1 EICADPSEEWQ 12

RESULT 18
ID R38967 standard; Protein: 69 AA.
AC R38967;
DT 23-NOV-1993 (first entry)
DE LD78 Arg17>Glu, Gln18>Glu.
KW SCI; stem cell inhibition; LD78; ACT2; MIP-1alpha;
KW macrophage inflammatory protein; multimer; tumour therapy;
KW psoriasis; hyperproliferation.
OS Homo sapiens.
PN MO9313206-A.
PD 08-JUL-1993.
PE 23-DEC-1992; G02390.
PR 23-DEC-1991; GB-027319.
PR 14-OCT-1992; GB-021587.
PA (BRRI-) BRITISH BIO-TECHNOLOGY LTD.
PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
PI Hunter MG;
PI WPI: 93-227322/28.
PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
PT alpha - unable to form stable multimer higher than dodecamer,
PT providing better tissue penetration
PS Example 42; Page 65; 294pp; English.
CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-
CC 1alpha, having mutations to prevent or reduce multimer formation
CC beyond certain stages (e.g. dodecamer), have improved solution
CC properties leading to enhanced productivity and greater therapeutic
CC utility as stem cell protective agents. The analogues may be used
CC in tumour therapy, psoriasis or other diseases involving hyper-
CC proliferative stem cells.
CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
CC analogues correspond to the pref. LD78 analogues.
SQ Sequence 69 AA;

Query Match 94.6%; Score 87; DB 7; Length 69;
Best Local Similarity 83.3%; Pred. No. 1.51e-01;
Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 48 gvcadpseewq 59
:::|||||
QY 1 EICADPSEEWQ 12

RESULT 19
ID R38968 standard; Protein: 69 AA.
AC R38968;
DT 23-NOV-1993 (first entry)
DE LD78 Leu67>Glu.
KW SCI; stem cell inhibition; LD78; ACT2; MIP-1alpha;
KW macrophage inflammatory protein; multimer; tumour therapy;
KW psoriasis; hyperproliferation.
OS Homo sapiens.
PN MO9313206-A.
PD 08-JUL-1993.
PE 23-DEC-1992; G02390.
PR 23-DEC-1991; GB-027319.
PR 14-OCT-1992; GB-021587.
PA (BRRI-) BRITISH BIO-TECHNOLOGY LTD.
PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;

PI Hunter MG;
DR WPI: 93-227322/28.
PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
PT alpha - unable to form stable multimer higher than dodecamer,
PT providing better tissue penetration
PS Example 43; Page 65-66; 294pp; English.
CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-
CC 1alpha, having mutations to prevent or reduce multimer formation
CC beyond certain stages (e.g. dodecamer), have improved solution
CC properties leading to enhanced productivity and greater therapeutic
CC utility as stem cell protective agents. The analogues may be used
CC in tumour therapy, psoriasis or other diseases involving hyper-
CC proliferative stem cells.
CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
CC analogues correspond to the pref. LD78 analogues.
SQ Sequence 69 AA;

Query Match 94.6%; Score 87; DB 7; Length 69;
Best Local Similarity 83.3%; Pred. No. 1.51e-01;
Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 48 gvcadpseewq 59
:::|||||
QY 1 EICADPSEEWQ 12

RESULT 20
ID R38975 standard; Protein: 69 AA.
AC R38975;
DT 23-NOV-1993 (first entry)
DE LD78 Phe28>Tyr.
KW SCI; stem cell inhibition; LD78; ACT2; MIP-1alpha;
KW macrophage inflammatory protein; multimer; tumour therapy;
KW psoriasis; hyperproliferation.
OS Homo sapiens.
PN MO9313206-A.
PD 08-JUL-1993.
PE 23-DEC-1992; G02390.
PR 23-DEC-1991; GB-027319.
PR 14-OCT-1992; GB-021587.
PA (BRRI-) BRITISH BIO-TECHNOLOGY LTD.
PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
PI Hunter MG;
PI WPI: 93-227322/28.
PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
PT alpha - unable to form stable multimer higher than dodecamer,
PT providing better tissue penetration
PS Example 50; Page 68; 294pp; English.
CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-
CC 1alpha, having mutations to prevent or reduce multimer formation
CC beyond certain stages (e.g. dodecamer), have improved solution
CC properties leading to enhanced productivity and greater therapeutic
CC utility as stem cell protective agents. The analogues may be used
CC in tumour therapy, psoriasis or other diseases involving hyper-
CC proliferative stem cells.
CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
CC analogues correspond to the pref. LD78 analogues.
SQ Sequence 69 AA;

Query Match 94.6%; Score 87; DB 7; Length 69;
Best Local Similarity 83.3%; Pred. No. 1.51e-01;
Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 48 gvcadpseewq 59
:::|||||
QY 1 EICADPSEEWQ 12

RESULT 21
ID R38973 standard; Protein: 69 AA.
AC R38973;

DT 23-NOV-1993 (first entry)
 DE LD78 Leu67>Ala.
 KW SCI; stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KW macrophage inflammatory protein; multimer; tumour therapy;
 OS psoriasis; hyperproliferation.
 KM Homo sapiens.
 PN WO9313206-A.
 PD 08-JUL-1993.
 PF 23-DEC-1992; G02390.
 PR 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BRBI-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG;
 PT WPI: 93-227322/28.
 PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 alpha - unable to form stable multimer higher than dodecamer,
 providing better tissue penetration
 PS Example 48; Page 67; 294pp; English.
 OS Analogues of natural stem cell inhibitors, such as LD78 and MIP-
 1alpha, having mutations to prevent or reduce multimer formation
 CC beyond certain stages (e.g. dodecamer), have improved solution
 CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
 CC Gln18>Gln) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
 CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 69 AA:

Query Match 94.6%; Score 87; DB 7; Length 69;
 Best Local Similarity 83.3%; Pred. No. 1.51e-01;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 48 gvcadpseewq 59
 :|||||
 QY 1 EICADPSEEWQ 12

RESULT 22
 ID R38965 standard; Protein; 69 AA.
 AC R38965;
 DT 23-NOV-1993 (first entry)
 DE LD78 Ala3>Glu.
 KW SCI; stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KW macrophage inflammatory protein; multimer; tumour therapy;
 OS psoriasis; hyperproliferation.
 KM Homo sapiens.
 PN WO9313206-A.
 PD 08-JUL-1993.
 PF 23-DEC-1992; G02390.
 PR 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BRBI-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG;
 PT WPI: 93-227322/28.
 PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 alpha - unable to form stable multimer higher than dodecamer,
 providing better tissue penetration
 PS Example 40; Page 64-65; 294pp; English.
 OS Analogues of natural stem cell inhibitors, such as LD78 and MIP-
 1alpha, having mutations to prevent or reduce multimer formation
 CC beyond certain stages (e.g. dodecamer), have improved solution
 CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
 CC Gln18>Gln) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
 CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 69 AA:

Query Match 94.6%; Score 87; DB 7; Length 69;
 Best Local Similarity 83.3%; Pred. No. 1.51e-01;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 48 gvcadpseewq 59
 :|||||
 QY 1 EICADPSEEWQ 12

RESULT 23
 ID R38964 standard; Protein; 69 AA.
 AC R38964;
 DT 23-NOV-1993 (first entry)
 DE LD78 Leu2>Glu.
 KW SCI; stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KW macrophage inflammatory protein; multimer; tumour therapy;
 OS psoriasis; hyperproliferation.
 KM Homo sapiens.
 PN WO9313206-A.
 PD 08-JUL-1993.
 PF 23-DEC-1992; G02390.
 PR 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BRBI-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG;
 PT WPI: 93-227322/28.
 PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 alpha - unable to form stable multimer higher than dodecamer,
 providing better tissue penetration
 PS Example 39; Page 64; 294pp; English.
 OS Analogues of natural stem cell inhibitors, such as LD78 and MIP-
 1alpha, having mutations to prevent or reduce multimer formation
 CC beyond certain stages (e.g. dodecamer), have improved solution
 CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
 CC Gln18>Gln) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
 CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 69 AA:

Query Match 94.6%; Score 87; DB 7; Length 69;
 Best Local Similarity 83.3%; Pred. No. 1.51e-01;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 48 gvcadpseewq 59
 :|||||
 QY 1 EICADPSEEWQ 12

RESULT 24
 ID R38953 standard; Protein; 69 AA.
 AC R38953;
 DT 23-NOV-1993 (first entry)
 DE LD78 Asp26>Ser.
 KW SCI; stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KW macrophage inflammatory protein; multimer; tumour therapy;
 OS psoriasis; hyperproliferation.
 KM Homo sapiens.
 PN WO9313206-A.
 PD 08-JUL-1993.
 PF 23-DEC-1992; G02390.
 PR 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BRBI-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG;
 PT WPI: 93-227322/28.
 PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 alpha - unable to form stable multimer higher than dodecamer,
 providing better tissue penetration

PT providing better tissue penetration.
 PS Example 28; Page 60; 294pp; English.
 CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-1alpha, having mutations to prevent or reduce multimer formation beyond certain stages (e.g. dodecamer), have improved solution properties leading to enhanced productivity and greater therapeutic utility as stem cell protective agents. The analogues may be used in tumour therapy, psoriasis or other diseases involving hyperproliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 69 AA;

Query Match 94.6%; Score 87; DB 7; Length 69;
 Best Local Similarity 83.3%; Pred. No. 1.51e-01;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 48 qvcadpsewvq 59
 :|||||
 1 EICADPSEWVQ 12

RESULT 25
 ID R38970 standard; Protein; 69 AA.
 AC R38970; (first entry)
 DT 23-NOV-1993
 DE LD78 Leu2>Ala.
 KW SCI: stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KM macrophage inflammatory protein; multimer; tumour therapy;
 KW psoriasis; hyperproliferation.
 OS Homo sapiens.
 PN WO9313206-A.
 PD 08-JUL-1993.
 PE 23-DEC-1992; G02390.
 PR 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BBRI-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG;
 DR WPI: 93-227322/28.
 PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1 alpha - unable to form stable multimer higher than dodecamer.
 PS providing better tissue penetration
 PS Example 45; Page 66; 294pp; English.
 CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-1alpha, having mutations to prevent or reduce multimer formation beyond certain stages (e.g. dodecamer), have improved solution properties leading to enhanced productivity and greater therapeutic utility as stem cell protective agents. The analogues may be used in tumour therapy, psoriasis or other diseases involving hyperproliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 69 AA;

Query Match 94.6%; Score 87; DB 7; Length 69;
 Best Local Similarity 83.3%; Pred. No. 1.51e-01;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 48 qvcadpsewvq 59
 :|||||
 1 EICADPSEWVQ 12

RESULT 26
 ID R38969 standard; Protein; 69 AA.
 AC R38969; (first entry)
 DT 23-NOV-1993
 DE LD78 Ser46>Ala.
 KW SCI: stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KM macrophage inflammatory protein; multimer; tumour therapy;

KW psoriasis; hyperproliferation.
 OS Homo sapiens.
 PN WO9313206-A.
 PD 08-JUL-1993.
 PE 23-DEC-1992; G02390.
 PR 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BBRI-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG;
 DR WPI: 93-227322/28.
 PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1 alpha - unable to form stable multimer higher than dodecamer.
 PS providing better tissue penetration
 PS Example 44; Page 66; 294pp; English.
 CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-1alpha, having mutations to prevent or reduce multimer formation beyond certain stages (e.g. dodecamer), have improved solution properties leading to enhanced productivity and greater therapeutic utility as stem cell protective agents. The analogues may be used in tumour therapy, psoriasis or other diseases involving hyperproliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 69 AA;

Query Match 94.6%; Score 87; DB 7; Length 69;
 Best Local Similarity 83.3%; Pred. No. 1.51e-01;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 48 qvcadpsewvq 59
 :|||||
 1 EICADPSEWVQ 12

RESULT 27
 ID R38976 standard; Protein; 69 AA.
 AC R38976; (first entry)
 DT 23-NOV-1993
 DE LD78 Asp5>Ser.
 KW SCI: stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KM macrophage inflammatory protein; multimer; tumour therapy;
 KW psoriasis; hyperproliferation.
 OS Homo sapiens.
 PN WO9313206-A.
 PD 08-JUL-1993.
 PE 23-DEC-1992; G02390.
 PR 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BBRI-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Czaplowski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG;
 DR WPI: 93-227322/28.
 PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1 alpha - unable to form stable multimer higher than dodecamer.
 PS providing better tissue penetration
 PS Example 51; Page 68-69; 294pp; English.
 CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-1alpha, having mutations to prevent or reduce multimer formation beyond certain stages (e.g. dodecamer), have improved solution properties leading to enhanced productivity and greater therapeutic utility as stem cell protective agents. The analogues may be used in tumour therapy, psoriasis or other diseases involving hyperproliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 69 AA;

Query Match 94.6%; Score 87; DB 7; Length 69;
 Best Local Similarity 83.3%; Pred. No. 1.51e-01;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 48 qvcadpseewq 59
 :|||||
 1 EICADPSEEWQ 12

RESULT 28
 ID R39092 standard; Protein; 69 AA.
 AC R39092;
 DT 23-NOV-1993 (first entry)
 DE LD78 Ser12>Ala.
 KW SCT; stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KW macrophage inflammatory protein; multimer; tumour therapy;
 KW psoriasis; hyperproliferation.
 OS Homo sapiens.
 PN W09313206-A.
 PD 08-JUL-1993.
 PF 23-DEC-1992; G02390.
 PR 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BRBT-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Caplewski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG;
 DR WPI: 93-227322/28.
 PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 PT alpha - unable to form stable multimer higher than dodecamer,
 PT providing better tissue penetration
 PS Example 70; Page 75; 294pp; English.
 CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-
 CC 1alpha, having mutations to prevent or reduce multimer formation
 CC beyond certain stages (e.g. dodecamer); have improved solution
 CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
 CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
 CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 69 AA;

Query Match 94.6%; Score 87; DB 7; Length 69;
 Best Local Similarity 83.3%; Pred. No. 1.51e-01;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 48 qvcadpseewq 59
 :|||||
 1 EICADPSEEWQ 12

RESULT 29
 ID R39090 standard; Protein; 69 AA.
 AC R39090;
 DT 23-NOV-1993 (first entry)
 DE LD78 Tyr61>Ala.
 KW SCT; stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KW macrophage inflammatory protein; multimer; tumour therapy;
 KW psoriasis; hyperproliferation.
 OS Homo sapiens.
 PN W09313206-A.
 PD 08-JUL-1993.
 PF 23-DEC-1992; G02390.
 PR 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BRBT-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Caplewski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG;
 DR WPI: 93-227322/28.
 PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 PT alpha - unable to form stable multimer higher than dodecamer,
 PT providing better tissue penetration
 PS Example 68; Page 75; 294pp; English.
 CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-
 CC 1alpha, having mutations to prevent or reduce multimer formation

CC beyond certain stages (e.g. dodecamer), have improved solution
 CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
 CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
 CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 69 AA;

Query Match 94.6%; Score 87; DB 7; Length 69;
 Best Local Similarity 83.3%; Pred. No. 1.51e-01;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 48 qvcadpseewq 59
 :|||||
 1 EICADPSEEWQ 12

RESULT 30
 ID R39088 standard; Protein; 69 AA.
 AC R39088;
 DT 23-NOV-1993 (first entry)
 DE LD78 Ser1>Ala.
 KW SCT; stem cell inhibition; LD78; ACT2; MIP-1alpha;
 KW macrophage inflammatory protein; multimer; tumour therapy;
 KW psoriasis; hyperproliferation.
 OS Homo sapiens.
 PN W09313206-A.
 PD 08-JUL-1993.
 PF 23-DEC-1992; G02390.
 PR 23-DEC-1991; GB-027319.
 PR 14-OCT-1992; GB-021587.
 PA (BRBT-) BRITISH BIO-TECHNOLOGY LTD.
 PI Craig S, Caplewski LG, Edwards RM, Gilbert RJ;
 PI Hunter MG;
 DR WPI: 93-227322/28.
 PT Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
 PT alpha - unable to form stable multimer higher than dodecamer,
 PT providing better tissue penetration
 PS Example 66; Page 74; 294pp; English.
 CC Analogues of natural stem cell inhibitors, such as LD78 and MIP-
 CC 1alpha, having mutations to prevent or reduce multimer formation
 CC beyond certain stages (e.g. dodecamer); have improved solution
 CC properties leading to enhanced productivity and greater therapeutic
 CC utility as stem cell protective agents. The analogues may be used
 CC in tumour therapy, psoriasis or other diseases involving hyper-
 CC proliferative stem cells.
 CC Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
 CC Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-1alpha
 CC analogues correspond to the pref. LD78 analogues.
 SQ Sequence 69 AA;

Query Match 94.6%; Score 87; DB 7; Length 69;
 Best Local Similarity 83.3%; Pred. No. 1.51e-01;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 48 qvcadpseewq 59
 :|||||
 1 EICADPSEEWQ 12

Search completed: Thu Apr 1 07:41:20 1999
 Job time : 28 secs.


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ALIGNMENTS

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promoter-induced protein; macrophage inflammatory protein
homolog GOS19-1; MIP-1alpha; PAT464; small inducible
cytokine A3; T-cell activation protein 1
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DATE 03-Aug-1992 #sequence_revision 03-Aug-1992 #text_change
29-May-1998
ACCESSIONS A35673; A30574; A30412; A24198; A30908
REFERENCE A35673
#authors Nakao, M.; Nomiyama, H.; Shimada, K.
#journal Mol. Cell. Biol. (1990) 10:3646-3658
#title Structures of human genes coding for cytokine LD78 and their
expression.
#cross-references MUID:90287155
#accession A35673
#molecule_type DNA
#status Preliminary
#residues 1-92 ##label NAK
REFERENCE ##cross-references GB:D90144; NID:g219905; PID:d1014875; PID:g219906
A30574
#authors Zupfel, P.F.; Balke, J.; Irving, S.G.; Kelly, K.; Stephenist,
U.
#journal J. Immunol. (1989) 142:1582-1590
#title Mitogenic activation of human T cells induces two closely
related genes which share structural similarities with a
new family of secreted factors.
#cross-references MUID:89140347
#accession A30574
#molecule_type mRNA
#residues 1-92 ##label ZIP
REFERENCE ##cross-references GB:M25315; NID:g602452; PID:g602453
A30412
#authors Blum, S.; Forsdyke, R.E.; Forsdyke, D.R.
#journal DNA Cell Biol. (1990) 9:589-602
#title Three human homologs of a murine gene encoding an inhibitor
of stem cell proliferation.
#cross-references MUID:91103879
#accession A30412
#molecule_type mRNA
#residues 1-92 ##label BLU
REFERENCE A24198
#authors Obaru, K.; Fukuda, M.; Maeda, S.; Shimada, K.
#journal J. Biochem. (1986) 99:885-894
#title A cDNA clone used to study mRNA inducible in human tonsillar
lymphocytes by a tumor promoter.
#cross-references MUID:86223879
#accession A24198
#molecule_type mRNA
#status Preliminary
#residues 1-92 ##label OBA
GENETICS
#gene GDB:SCYA3
#cross-references GDB:120368; OMIM:182283
#map_position 17q11-17q21
CLASSIFICATION #superfamily macrophage inflammatory protein
FEATURE
1-20 #domain signal sequence #status predicted #label SIG\
21-92 #product macrophage inflammatory protein 1-alpha #status
predicted #label MAT\
SUMMARY #disulfide_bonds #status predicted
33-57,34-73 #length 92 #molecular_weight 10085 #checksum 4316
Query Match 94.6%; Score 87; DB 2; Length 92;
```

```
Best Local Similarity 83.3%; Pred. No. 6.80e-06;
Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 71 QVCADPSEEWQ 82
:|||||
QY 1 EICADPSEEWQ 12

RESULT 2
ENTRY 2
TITLE B35673 #type complete
ALTERNATE_NAMES LD78-beta protein precursor - human
macrophage inflammatory protein homolog GOS19-2; small
inducible cytokine A4
ORGANISM #formal_name Homo sapiens #common_name man
DATE 28-Sep-1990 #sequence_revision 28-Sep-1990 #text_change
24-Sep-1998
ACCESSIONS B35673; B30412; S10157; B30908
REFERENCE B35673
#authors Nakao, M.; Nomiyama, H.; Shimada, K.
#journal Mol. Cell. Biol. (1990) 10:3646-3658
#title Structures of human genes coding for cytokine LD78 and their
expression.
#cross-references MUID:90287155
#accession B35673
#molecule_type DNA
#status Preliminary
#residues 1-93 ##label NAK
REFERENCE ##cross-references GB:D90145; NID:g219907; PID:d1014876; PID:g219908
A30412
#authors Blum, S.; Forsdyke, R.E.; Forsdyke, D.R.
#journal DNA Cell Biol. (1990) 9:589-602
#title Three human homologs of a murine gene encoding an inhibitor
of stem cell proliferation.
#cross-references MUID:91103879
#accession B30412
#status Preliminary; not compared with conceptual translation
#molecule_type DNA
#residues 1-93 ##label BLU
REFERENCE ##cross-references GB:M24110; GB:M32338; NID:g182848; PID:g182849
S10157
#authors Irving, S.G.; Zupfel, P.F.; Balke, J.; McBride, O.W.; Morton,
C.C.; Burg, P.R.; Stephenist, U.; Kelly, K.
#journal Nucleic Acids Res. (1990) 18:3261-3270
#title Two inflammatory mediator cytokine genes are closely linked
and variably amplified on chromosome 17q.
#cross-references MUID:90287702
#accession S10157
#status Preliminary
#molecule_type mRNA
#residues 1-93 ##label IRV
REFERENCE ##cross-references EMBL:X52149; NID:g34750; PID:g296666
COMMENT This protein is a member of a "small inducible" or "activation
specific" gene family, is likely to be an early-acting
interleukin, and is the product of a putative G0/G1 switch gene.
GENETICS
#gene GDB:SCYA4
#cross-references GDB:120369; OMIM:182284
#map_position 17q11-17q21
#introns 26/1; 64/2
CLASSIFICATION #superfamily macrophage inflammatory protein
FEATURE
1-22 #domain signal sequence #status predicted #label SIG\
23-93 #product LD78-beta protein #status predicted #label MAT\
SUMMARY #length 93 #molecular_weight 10161 #checksum 7784
Query Match 94.6%; Score 87; DB 2; Length 93;
Best Local Similarity 83.3%; Pred. No. 6.80e-06;
Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 72 QVCADPSEEWQ 83
:|||||
QY 1 EICADPSEEWQ 12
```


RESULT 3
ENTRY S07723 #type complete
TITLE Immediate-early serum-responsive protein JE - rat
ALTERNATE_NAMES monocyte-chemottractant protein-1
ORGANISM #formal_name Rattus norvegicus #common_name Norway rat
DATE 29-Jan-1993 #sequence_revision 29-Jan-1993 #text_change 08-Sep-1997

ACCESSIONS S07723; JN0128
REFERENCE S07723
#authors Timmers, H.T.M.; Pronk, G.J.; Bos, J.L.; van der Eb, A.J.
#journal Nucleic Acids Res. (1990) 18:23-34
#title Analysis of the rat JE gene promoter identifies an AP-1 binding site essential for basal expression but not for TPA induction.
#cross-references MUID:90174947
#accession S07723
##molecule_type DNA
##residues 1-148 ##label TIM
##cross-references EMBL:X17053; NID:955530; PID:955531

REFERENCE JN0128
#authors Yoshimura, T.; Takeya, M.; Takahashi, K.
#journal Biochem. Biophys. Res. Commun. (1991) 174:504-509
#title Molecular cloning of rat monocyte chemoattractant protein-1 (MCP-1) and its expression in rat spleen cells and tumor cell lines.
#cross-references MUID:91128376
#accession JN0128
##molecule_type mRNA
##residues 1-148 ##label YOS
##cross-references GB:M57441; NID:9205333; PID:9205334
##experimental_source spleen cells
##note the authors translated the codon GAA for residue 62 as lys and GCT for residue 63 as leu

GENETICS 26/1: 65/2
CLASSIFICATION #superfamily macrophage inflammatory protein
FEATURE 1-23
24-148 #domain signal sequence #status predicted #label SIG
SUMMARY #product immediate-early serum-responsive protein JE
#status predicted #label MAT
#length 148 #molecular-weight 16460 #checksum 4876

Query Match 89.1%; Score 82; DB 2; Length 148;
Best Local Similarity 83.3%; Pred. No. 7.39e-05;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

DB 73 EICADPNKEWQ 84
OY 1 EICADPSEEWQ 12

RESULT 4
ENTRY C60407 #type fragment
TITLE monocyte adherence-induced protein 5 beta - human (fragment)
ORGANISM #formal_name Homo sapiens #common_name man
DATE 06-Nov-1992 #sequence_revision 06-Nov-1992 #text_change 03-May-1996

ACCESSIONS C60407
REFERENCE A60407
#authors Sporn, S.A.; Eberman, D.F.; Johnson, C.E.; Morris, J.; Martin, G.; Ladner, M.; Haskill, S.
#journal J. Immunol. (1990) 144:4434-4441
#title Monocyte adherence results in selective induction of novel genes sharing homology with mediators of inflammation and tissue repair.
#cross-references MUID:90257367
#accession C60407
##status preliminary; not compared with conceptual translation
##molecule_type mRNA
##residues 1-50 ##label SPO
CLASSIFICATION #superfamily macrophage inflammatory protein

SUMMARY #length 50 #checksum 9927
Query Match 87.0%; Score 80; DB 2; Length 50;
Best Local Similarity 75.0%; Pred. No. 1.89e-04;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

DB 30 QVCADPSESQ 41
OY 1 EICADPSEEWQ 12

RESULT 5
ENTRY A31767 #type complete
TITLE macrophage inflammatory protein 1-beta precursor - human
ALTERNATE_NAMES cytokine HC1; G-26 protein; H400 homolog; lymphocyte activation gene 1 protein (LAG-1); MIP-1beta; PAR744; SCYA2 protein (misidentification); SIS gamma homolog; T-cell activation protein 2 (Act-2); T-cell activation protein gamma

ORGANISM #formal_name Homo sapiens #common_name man
DATE 07-Jun-1990 #sequence_revision 29-May-1998 #text_change 29-May-1998

ACCESSIONS JH0319; A40978; A31767; A37411; B30574; B45817; D30552
REFERENCE JH0319
#authors Balceras, E.; Roman-Roman, S.; Jitsukawa, S.; Genevee, C.; Mechiche, S.; Viegas-Pequignot, E.; Hercend, T.; Trilebel, F.
#journal Mol. Immunol. (1990) 27:1091-1102
#title Cloning and expression of a lymphocyte activation gene (LAG-1)
#cross-references MUID:91061800
#accession JH0319
##status translation not shown
##molecule_type DNA
##residues 1-92 ##label BAI
##cross-references GB:X53682; NID:934217; PID:934218
##experimental_source natural killer cell, strain CD3-CD2+, F5, STILES A40978

REFERENCE A40978
#authors Napolitano, M.; Modi, W.S.; Cevalario, S.J.; Gnarr, J.R.; Senanay, H.N.; Leonard, W.J.
#journal J. Biol. Chem. (1991) 266:17531-17536
#title The gene encoding the Act-2 cytokine. Genomic structure, HIV-1/tax responsiveness of 5' upstream sequences, and chromosomal localization.
#cross-references MUID:91373378
#accession A40978
##molecule_type DNA
##residues 1-14,'S',16-69,'G',71-92 ##label NAP
#cross-references GB:M69201; NID:9178021
##note 15-Ala was also found

REFERENCE A31767
#authors Lipas, M.A.; Napolitano, M.; Jeang, K.T.; Chang, N.T.; Leonard, W.J.
#journal Proc. Natl. Acad. Sci. U.S.A. (1988) 85:9704-9708
#title Identification, cloning, and characterization of an immune activation gene.
#cross-references MUID:89071764
#accession A31767
##molecule_type mRNA
##residues 1-92 ##label LIP
##cross-references GB:004130; NID:9178017; PID:9178018

REFERENCE A37411
#authors Chang, H.C.; Reinherz, E.L.; Eur. J. Immunol. (1989) 19:1045-1051
#title Isolation and characterization of a cDNA encoding a putative cytokine which is induced by stimulation via the CD2 structure on human T lymphocytes.
#cross-references MUID:89325421
#accession A37411
##molecule_type mRNA
##residues 1-92 ##label CHA
#cross-references GB:X16166; NID:932035; PID:932036
REFERENCE A30574

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#authors      Zipfel, P.F.; Balke, J.; Irving, S.G.; Kelly, K.; Siebenlist,
#journal      J. Immunol. (1989) 142:1582-1590
#title        Mitogenic activation of human T cells induces two closely
              related genes which share structural similarities with a
              new family of secreted factors.
#cross-references MIM:89140347
#accession    B30574
#molecule_type mRNA
#residues     1-19, 'L', 21-92 ##label ZIP
#cross-references GB:M25316; NID:9602454; PID:9602455
REFERENCE
#authors      Miller, M.D.; Hata, S.; Malefyt, R.D.W.; Krangel, M.S.
#journal      J. Immunol. (1989) 143:2907-2916
#title        A novel polypeptide secreted by activated human T
              lymphocytes.
#cross-references MIM:90038522
#accession    B45817
#molecule_type mRNA
#residues     7-55, 'I', 57-79, 'T', 81-92 ##label MIL
#cross-references GB:M57503; NID:9339726; PID:9339727
REFERENCE
#authors      Brown, K.D.; Zurawski, S.M.; Mosmann, T.R.; Zurawski, G.
#journal      J. Immunol. (1989) 142:679-687
#title        A family of small inducible proteins secreted by leukocytes
              are members of a new superfamily that includes leukocyte
              and fibroblast-derived inflammatory agents, growth factors,
              and indicators of various activation processes.
#cross-references MIM:89093958
#accession    D30552
#molecule_type mRNA
#residues     1-39, 'REASS', 46-92 ##label BRO
#cross-references GB:M23502; NID:9533212; PID:9533213
REFERENCE
#authors      Clore, G.M.; Lodi, P.J.; Garrett, D.S.; Gronenborn, A.M.
#journal      Submitted to the Brookhaven Protein Data Bank, January 1994
#title        Submission
#cross-references PDB:1HNM
#contents     annotation: conformation and disulfide bond assignments by
              (1)H-NMR, residues 24-92
              This protein is secreted by activated lymphocytes and monocytes. It
              is bound by chemokine (C-C) receptor 5 (see PIR:A43113) and
              receptor 1 (see PIR:A45177).
GENETICS
#gene         GDB:LAG1
#cross-references GDB:127451; OMIM:153335
#map_position 17q21-17q21
#introns      26/1; 64/2
CLASSIFICATION
#superfamily macrophage inflammatory protein
#keywords     chemotaxis; cytokine; inflammation
FEATURE
1-23          #domain signal sequence #status predicted #label SIG\
24-92         #product macrophage inflammatory protein 1-beta #status
              experimental #label MAT\
              #disulfide_bonds #status experimental
SUMMARY
34-58,35-74   #length 92 #molecular-weight 10212 #checksum 7597
Query Match   87.0%; Score 80; DB 1; Length 92;
Best Local Similarity 75.0%; Pred. No. 1.89e-04;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
Db 72 QVCADPSESWQ 83
QY 1 EICADPSESWQ 12
RESULT 6
ENTRY      A54678      #type complete
TITLE      monocyte chemotactic protein 3 precursor - human
ALTERNATE_NAMES
ORGANISM   Homo sapiens #common_name man
DATE       28-Oct-1994 #sequence_revision 28-Oct-1994 #text_change
ACCESSIONS A54678; JCI478; S32222

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REFERENCE
#authors      Opdenacker, G.; Fiten, P.; Nys, G.; Froyen, G.; Van Roy, N.;
#journal      Speleman, F.; Laureys, G.; Van Damme, J.
#title        Genomics (1994) 21:403-408
              The human MCP-3 gene (SCYA7): cloning, sequence analysis, and
              assignment to the C-C chemokine gene cluster on chromosome
              17q11.2-q12.
#accession    A54678
#molecule_type DNA
#residues     1-109 ##label OPD
#cross-references GB:X72309
REFERENCE
#authors      Opdenacker, G.; Froyen, G.; Fiten, P.; Proost, P.; Van Damme,
#journal      J.
#title        Biochem. Biophys. Res. Commun. (1993) 191:535-542
              Human monocyte chemotactic protein-3 (MCP-3): Molecular
              cloning of the cDNA and comparison with other chemokines.
#accession    JCI478
#molecule_type mRNA
#residues     1-109 ##label OP2
REFERENCE
#authors      Minty, A.; Chalon, P.; Guillemot, J.C.; Kagnad, M.; Liauzun,
#journal      P.; Magazini, M.; Miloux, B.; Minty, C.; Ramond, P.; Vita,
#title        N.; Lupker, J.; Shire, D.; Ferrara, P.; Caput, D.
              Submitted to the EMBL Data Library, March 1993
              Molecular cloning of MCP-3: a human monocyte-derived monocyte
              chemotactic protein.
#accession    S32222
#molecule_type mRNA
#residues     1-109 ##label MIN
#cross-references EMBL:X71087; NID:9288396; PID:9288397
COMMENT      This protein induces proteinase secretion and chemotaxis by
              macrophages and monocytes.
GENETICS
#gene         GDB:SCYA7; SCYA6; MCP-3
#cross-references GDB:138473; OMIM:158106
#map_position 17q11-17q12
#introns      36/1; 75/2
CLASSIFICATION
#superfamily macrophage inflammatory protein
#keywords     cytokine; glycoprotein; inflammation
FEATURE
1-33          #domain signal sequence #status predicted #label SIG\
34-109        #product monocyte chemotactic protein 3 #status
              predicted #label MAT\
              #binding_site carbohydrate (Asn) (covalent) #status
              predicted
SUMMARY
39            #length 109 #molecular-weight 12356 #checksum 1535
Query Match   87.0%; Score 80; DB 2; Length 109;
Best Local Similarity 75.0%; Pred. No. 1.89e-04;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
Db 83 EICADPQKRWQ 94
QY 1 EICADPSESWQ 12
RESULT 7
ENTRY      JE0177      #type complete
TITLE      lymphocyte and monocyte chemottractant CC chemokine - human
ALTERNATE_NAMES
ORGANISM   Homo sapiens #common_name man
DATE       10-Jul-1998 #sequence_revision 10-Jul-1998 #text_change
ACCESSIONS JE0177
REFERENCE
#authors      Youn, B.S.; Zhang, S.; Broxmeyer, H.E.; Antol, K.; Fraser
#journal      Jt., M.J.; Hangoc, G.; Kwon, B.S.
#title        Biochem. Biophys. Res. Commun. (1998) 247:217-222
              Isolation and characterization of lmc, a novel lymphocyte and
              monocyte chemottractant human CC chemokine, with
              myelosuppressive activity.
#accession    JE0177
#molecule_type mRNA

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##residues 1-120 ##label YOU
SUMMARY #length 120 #molecular-weight 13600 #checksum 230

Query Match 87.0%; Score 80; DB 2; Length 120;
Best Local Similarity 50.0%; Pred. No. 1.89e-04;
Matches 6; Conservative 6; Mismatches 0; Indels 0; Gaps 0;

Db 74 EVCINPNDWVQ 85
1 EICADPSEWVQ 12

RESULT 8
ENTRY 148147 #type complete
TITLE monocytic chemoattractant protein-1 - guinea pig
ORGANISM #formal_name Cavia porcellus #common_name guinea pig
DATE 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 09-May-1997

ACCESSIONS 148147
REFERENCE 148147
#authors Yoshimura, T.
#journal J. Immunol. (1993) 150:5025-5032
#title cDNA cloning of guinea pig monocytic chemoattractant protein-1 and expression of the recombinant protein.
#cross-references MIMD:93267104
#accession I48147
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-120 #label RES
#cross-references GB:I04985; NID:g349820; PID:g349821

GENETICS MCP-1
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 120 #molecular-weight 13741 #checksum 9252

Query Match 84.8%; Score 78; DB 2; Length 120;
Best Local Similarity 66.7%; Pred. No. 4.80e-04;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 71 EVCADPTOKWVQ 82
1 EICADPSEWVQ 12

RESULT 9
ENTRY A30209 #type complete
TITLE PDGF-inducible JE glycoprotein precursor - mouse
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 01-Dec-1989 #sequence_revision 01-Dec-1989 #text_change 01-May-1998
A30209; A44771; A30861

ACCESSIONS A30209
REFERENCE A30209
#authors Rollins, B.J.; Morrison, E.D.; Stiles, C.D.
#journal Proc. Natl. Acad. Sci. U.S.A. (1989) 85:3738-3742
#title Cloning and expression of JE, a gene inducible by platelet-derived growth factor and whose product has cytokine-like properties.
#cross-references MIMD:88234501
#accession A30209
#molecule_type DNA
#residues 1-148 #label ROL
#cross-references GB:M19681; NID:g193486; PID:g387168; GB:M19682

REFERENCE A44771
#authors Kawahara, R.S.; Deuel, T.F.
#journal J. Biol. Chem. (1989) 264:679-682
#title Platelet-derived growth factor-inducible gene JE is a member of a family of small inducible genes related to platelet factor 4.
#accession A44771
#molecule_type DNA; mRNA
#residues 1-148 #label KA2
#cross-references GB:J04467; NID:g193488; PID:g387169

GENETICS

#gene JE
#introns 26/1: 65/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS cytokine; glycoprotein
FEATURE 126
#binding-site carbohydrate (Asn) (covalent) #status predicted

SUMMARY #length 148 #molecular-weight 16326 #checksum 5278

Query Match 84.8%; Score 78; DB 2; Length 148;
Best Local Similarity 75.0%; Pred. No. 4.80e-04;
Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 73 EVCADPKKVVQ 84
1 EICADPSEWVQ 12

RESULT 10
ENTRY 146730 #type complete
TITLE immune activation gene 2 - rabbit
ORGANISM #formal_name Oryctolagus cuniculus #common_name domestic rabbit
DATE 14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change 09-May-1997

ACCESSIONS 146730
REFERENCE 146730
#authors Mori, S.; Goto, K.; Goto, F.; Mutakami, K.; Ohkawara, S.; Yoshinaga, M.
#journal Int. Immunol. (1994) 6:149-156
#title Dynamic changes in mRNA expression of neutrophils during the course of acute inflammation in rabbits.
#cross-references MIMD:94198229
#accession I46730
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-92 #label MOR
#cross-references GB:D17402; NID:g599577; PID:g599578

CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 92 #molecular-weight 10066 #checksum 5637

Query Match 83.7%; Score 77; DB 2; Length 92;
Best Local Similarity 66.7%; Pred. No. 7.62e-04;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 72 QVCANPSEWVQ 83
1 EICADPSEWVQ 12

RESULT 11
ENTRY A60299 #type complete
TITLE monocytic chemoattractant protein 1 precursor - human
ALTERNATE_NAMES GDCF-1; glioma-derived monocytic chemotactic factor 1; MCAF; MCP-1; monocytic chemotactic factor 1; monocytic secretory protein; tumor-derived chemotactic factor
ORGANISM #formal_name Homo sapiens #common_name man
DATE 20-Feb-1993 #sequence_revision 20-Feb-1993 #text_change 20-Mar-1998
A33474; A33476; S03339; I51841; A60299; A32300; A32396; A34561; I57488; JC1096

ACCESSIONS A33474
REFERENCE A33474
#authors Shyy, Y.J.; Li, Y.S.; Kolattukudy, P.E.
#journal Biochem. Biophys. Res. Commun. (1990) 169:346-351
#title Structure of human monocytic chemotactic protein gene and its regulation by TPA.
#cross-references MIMD:90290466
#accession A33474
#molecule_type DNA
#residues 1-99 #label SHY
#cross-references GB:M37719; NID:g187447; PID:g487124

REFERENCE A33476

#authors Rollins, B.J.; Stier, P.; Ernst, T.; Wong, G.G.
 #journal Mol. Cell. Biol. (1989) 9:4687-4695
 #title The human homolog of the JE gene encodes a monocyte secretory protein.
 #cross-references MUID:90097880
 #accession A33476
 ##molecule-type mRNA
 ##residues 1-99 ##label ROL
 ##cross-references GB:M30816; GB:M31625; GB:M31626; NID:q188701; PID:9386961

REFERENCE
 #authors S03339
 Yoshimura, T.; Yunki, N.; Moore, S.K.; Appella, E.; Lerman, M.I.; Leonard, E.J.
 #journal FEBS Lett. (1988) 244:487-493
 #title Human monocyte chemoattractant protein-1 (MCP-1). Full-length cDNA cloning, expression in mitogen-stimulated blood mononuclear leukocytes, and sequence similarity to mouse competence gene JE.
 #cross-references MUID:89153605
 #accession S03339
 ##status not compared with conceptual translation
 ##molecule-type mRNA
 ##residues 1-99 ##label YOS
 ##cross-references GB:X14768; NID:q34513; PID:q34514
 ##experimental-source glioma cell line U-105MG

REFERENCE
 #authors I51841
 Yoshimura, T.; Leonard, E.J.
 #journal Adv. Exp. Med. Biol. (1991) 305:47-56
 #title Human monocyte chemoattractant protein-1 (MCP-1).
 #cross-references MUID:9205166
 #accession I51841
 ##status preliminary; translated from GB/EMBL/DBJ
 ##molecule-type mRNA
 ##residues 1-99 ##label Y02
 ##cross-references GB:S71513; NID:q240867; PID:q240868

REFERENCE
 #authors A60299
 Bottazzi, B.; Colotta, F.; Sica, A.; Nobili, N.; Mantovani, A.
 #journal Int. J. Cancer (1990) 45:795-797
 #title A chemoattractant expressed in human sarcoma cells (tumor-derived chemotactic factor, TDCF) is identical to monocyte chemoattractant protein-1/monocyte chemotactic and activating factor (MCP-1/MCAF).
 #accession A60299
 ##status not compared with conceptual translation
 ##molecule-type mRNA
 ##residues 1-99 ##label BOT

REFERENCE
 #authors A32300
 Fututani, Y.; Nomura, H.; Notake, M.; Oyama, Y.; Fukui, T.; Yamada, M.; Larsen, C.G.; Oppenheim, J.J.; Matsushima, K.
 #journal Biochem. Biophys. Res. Commun. (1989) 159:249-255
 #title Cloning and sequencing of the cDNA for human monocyte chemotactic and activating factor (MCAF).
 #cross-references MUID:89165862
 #accession A32300
 ##status not compared with conceptual translation
 ##molecule-type mRNA
 ##residues 1-99 ##label FUR
 ##cross-references GB:M24545; NID:q187434; PID:q307163

REFERENCE
 #authors A32396
 Robinson, E.A.; Yoshimura, T.; Leonard, E.J.; Tanaka, S.; Griffin, P.R.; Shabanowitz, J.; Hunt, D.F.; Appella, E.
 #journal Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1850-1854
 #title Complete amino acid sequence of a human monocyte chemoattractant, a putative mediator of cellular immune reactions.
 #cross-references MUID:89184525
 #accession A32396
 ##molecule-type protein
 ##residues X', 25-99 ##label ROB

REFERENCE
 #authors A34561
 Decock, B.; Conings, R.; Lenaerts, J.P.; Billiau, A.; Van Damme, J.

#journal Biochem. Biophys. Res. Commun. (1990) 167:904-909
 #title Identification of the monocyte chemotactic protein from human osteosarcoma cells and monocytes: detection of a novel N-terminally processed form.
 #cross-references MUID:90211336
 #accession A34561
 ##molecule-type protein
 ##residues 29-33, 'XX', 36-52; 82-92 ##label DEC

REFERENCE
 #authors I57488
 Li, Y.S.; Shyy, Y.J.; Wright, J.G.; Valente, A.J.; Cornhill, J.F.; Kolattukudy, P.E.
 #journal Mol. Cell. Biochem. (1993) 126:61-68
 #title The expression of monocyte chemotactic protein (MCP-1) in human vascular endothelium in vitro and in vivo.
 #cross-references MUID:94150478
 #accession I57488
 ##status translated from GB/EMBL/DBJ
 ##molecule-type mRNA
 ##residues 1-99 ##label LIY
 ##cross-references GB:S69738; NID:q545464; PID:q545465

REFERENCE
 #authors JCI096
 Ye, Q.N.; Su, G.F.; Yuan, Y.; Huang, C.F.
 #journal Chinese J. Microbiol. Immunol. (1994) 14:29-32
 #title The PCR, cloning and sequencing of human monocyte chemoattractant protein-1 (MCP-1) gene.
 #accession JCI096
 ##molecule-type mRNA
 ##residues 24-28, 'Q', 30-99 ##label YEQ

GENETICS
 #gene GDB:SCYA2
 ##cross-references GDB:125279; OMIM:158105

CLASSIFICATION
 #map_position 17q11.2-17q12
 #superfamily macrophage inflammatory protein
 #keywords cytokine; glycoprotein; inflammation; pyroglutamic acid
 #feature
 1-23
 24-99
 29-99
 24
 37

SUMMARY
 #length 99 #molecular-weight 11025 #checksum 7984

Query Match 83.7%; Score 77; DB 2; Length 99;
 Best Local Similarity 75.0%; Pred. No. 7.62e-04;
 Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 73 EICADPKQKRWQ 84
 ||||| : |||
 QY 1 EICADPSEEWQ 12

RESULT 12
 ENTRY I52322 #type complete
 TITLE macrophage inflammatory protein-1alpha - rat
 ORGANISM #formal_name Rattus norvegicus #common_name Norway rat
 DATE 29-May-1998 #sequence_revision 29-May-1998 #text_change 02-Jul-1998

ACCESSIONS
 REFERENCE I52322
 #authors Shi, M.M.; Godlaski, J.J.; Paulauskis, J.D.
 #journal Biochem. Biophys. Res. Commun. (1995) 211:289-295
 #title Molecular cloning and posttranscriptional regulation of macrophage inflammatory protein-1 alpha in alveolar macrophages.
 #cross-references MUID:95298037
 #accession I52322
 ##status preliminary; translated from GB/EMBL/DBJ
 ##molecule-type mRNA
 ##residues 1-92 ##label RES

```
##cross-references EMBL:U22414; NID:9790632; PID:9790633
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 92 #molecular-weight 10335 #checksum 3184

Query Match      82.6%; Score 76; DB 2; Length 92;
Best Local Similarity 75.0%; Pred. No. 1,21e-03;
Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db      71 QICADPKETWQ 82
      :|||||: |||
      1 EICADPSEEWQ 12

RESULT 13
ENTRY JC2136 #type complete
TITLE monocyte chemoattractant protein-1 precursor - pig
ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
DATE 30-Sep-1993 #sequence_revision 20-Aug-1994 #text_change
08-Sep-1997
ACCESSIONS JC2136; S57498
REFERENCE JC2136
#authors Hosang, K.; Knoke, I.; Klaudiny, J.; Wempe, F.; Wuttke, W.;
#journal Scheit, K.H.
#title Biochem. Biophys. Res. Commun. (1994) 199:962-968
#molecule_type mRNA
#accession Porcine luteal cells express monocytic chemoattractant
#residues protein-1 (MCP-1): Analysis by polymerase chain reaction
#status and cDNA cloning.
#molecule_type mRNA
#accession JC2136
#authors Zach, O.
#journal Submitted to the EMBL Data Library, July 1994
#title S57497
#molecule_type mRNA
#accession S57498
#status Preliminary
#residues 1-99 ##label ZAC
#cross-references EMBL:X79416; NID:9872312; PID:9872313
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS glycoprotein
FEATURES
1-23 #domain signal sequence #status predicted #label SIG\
24-99 #product monocytic chemoattractant protein-1 #status
#predicted #label MAR\
#binding-site carbohydrate (Asn) (covalent) #status
94 predicted
SUMMARY #length 99 #molecular-weight 10976 #checksum 9768

Query Match      82.6%; Score 76; DB 2; Length 99;
Best Local Similarity 66.7%; Pred. No. 1,21e-03;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db      73 EICADPKQKRWQ 84
      :|||||: |||
      1 EICADPSEEWQ 12

RESULT 14
ENTRY JC2417 #type complete
TITLE monocyte chemoattractant protein-2 - pig
ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
DATE 24-Feb-1995 #sequence_revision 24-Feb-1995 #text_change
03-May-1996
ACCESSIONS JC2417
REFERENCE JC2417
#authors Hosang, K.; Knoke, I.; Klaudiny, J.; Wempe, F.; Wuttke, W.;
#journal Scheit, K.H.
#title Biochem. Biophys. Res. Commun. (1994) 205:148-153
#molecule_type mRNA
#accession Porcine luteal cells express monocytic chemoattractant
#residues protein-2 (MCP-2): Analysis by cDNA cloning and northern
#status analysis.
#molecule_type mRNA
JC2417

##residues 1-99 ##label HOS
##experimental_source corpus luteum
CLASSIFICATION #superfamily macrophage inflammatory protein
FEATURES
1-23 #domain signal sequence #status predicted #label SIG\
24-99 #product monocytic chemoattractant protein-2 #status
#predicted #label MAR\
#binding-site carbohydrate (Asn) (covalent) #status
94 predicted
SUMMARY #length 99 #molecular-weight 11114 #checksum 9401

Query Match      78.3%; Score 72; DB 2; Length 99;
Best Local Similarity 66.7%; Pred. No. 7,39e-03;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db      73 EICADPKQKRWQ 84
      :|||||: |||
      1 EICADPSEEWQ 12

RESULT 15
ENTRY A39296 #type complete
TITLE monocyte chemoattractant protein 1 precursor - bovine
ORGANISM #formal_name Bos primigenius taurus #common_name cattle
DATE 03-Aug-1992 #sequence_revision 03-Aug-1992 #text_change
31-Oct-1997
ACCESSIONS A39296; B39296
REFERENCE A39296
#authors Wempe, F.; Henschen, A.; Scheit, K.H.
#journal DNA Cell Biol. (1991) 10:671-679
#title Gene expression and cDNA cloning identified a major basic
#molecule_type protein
#accession protein constituent of bovine seminal plasma as bovine
#residues monocytic-chemoattractant protein-1 (MCP-1).
#cross-references MUID:92096117
#molecule_type mRNA
#accession A39296
#residues 1-99 ##label WEM
#cross-references GB:M84602; GB:M85264; NID:q163394; PID:q163395
#accession B39296
#molecule_type protein
#residues 50-68,'X',70-74,'X',76 ##label WE2
#experimental_source seminal vesicle
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS glycoprotein
FEATURES
1-23 #domain signal sequence #status predicted #label SIG\
24-99 #product monocytic chemoattractant protein 1 #status
#predicted #label MAR\
#binding-site carbohydrate (Asn) (covalent) #status
94 predicted
SUMMARY #length 99 #molecular-weight 11114 #checksum 9401

Query Match      78.3%; Score 72; DB 2; Length 99;
Best Local Similarity 66.7%; Pred. No. 7,39e-03;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db      73 EICADPKQKRWQ 84
      :|||||: |||
      1 EICADPSEEWQ 12

RESULT 16
ENTRY JC2336 #type complete
TITLE monocyte chemoattractant protein-1 - bovine
ORGANISM #formal_name Bos primigenius indicus #common_name zebu cattle
DATE 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change
03-May-1996
ACCESSIONS JC2336
REFERENCE JC2336
#authors Wempe, F.; Kuhlmann, J.K.; Scheit, K.H.
#journal Biochem. Biophys. Res. Commun. (1994) 202:1272-1279
#title Characterization of the bovine monocytic chemoattractant
#molecule_type protein-1 gene.
#accession JC2336
```

```
##molecule_type protein
##residues 1-99 ##label WEM
GENETICS
#gene MCP-1
#introns 26/1: 65/2
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 99 #molecular-weight 11114 #checksum 9401

Query Match 78.3%; Score 72; DB 2; Length 99;
Best Local Similarity 66.7%; Pred. No. 7.39e-03;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 73 EICADPSEWVQ 84
Oy 1 EICADPSEWVQ 12

RESULT 17
ENTRY C30552 #type complete
TITLE macrophage inflammatory protein 1-beta - mouse
ALTERNATE_NAMES H400; SIS gamma; T-cell activation protein gamma
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 28-Aug-1989 #sequence_revision 28-Aug-1989 #text_change 20-Mar-1998
ACCESSIONS C30552; J10088; PS0304; S22042
REFERENCE A30552
#authors Brown, K.D.; Zurawski, S.M.; Mosmann, T.R.; Zurawski, G.
#journal J. Immunol. (1989) 142:679-687
#title A family of small inducible proteins secreted by leukocytes are members of a new superfamily that includes leukocyte and fibroblast-derived inflammatory agents, growth factors, and indicators of various activation processes.
#cross-references MUID:89093858
#accession C30552
#molecule_type mRNA
#residues 1-92 ##label BRO
#cross-references GB:M23503; NID:g533244; PID:g533245
J10088
#authors Sherry, B.; Tekamp-Olson, P.; Gallegos, C.; Bauer, D.; Davatelis, G.; Wolpe, S.D.; Mastier, F.; Colt, D.; Ceram, A.
#journal J. Exp. Med. (1988) 168:2251-2259
#title Resolution of the two components of macrophage inflammatory protein 1, and cloning and characterization of one of those components, macrophage inflammatory protein 1 beta.
#cross-references MUID:89067830
#accession J10088
#molecule_type mRNA
#residues 1-92 ##label SHE
#cross-references GB:M35590; NID:g199696; PID:g199697
PS0304
#accession PS0304
#molecule_type protein
#residues 24-33,'XX',36,'X',38 ##label SH2
S22042
#authors Daubersies, P.; Lepretre, F.; Baillet, B.; Grove, M.; Pragnelli, I.; Plumb, M.
#submission submitted to the EMBL Data Library, October 1991
#description Sequence of the murine macrophage inflammatory protein 1b gene.
#accession S22042
#status preliminary
#molecule_type DNA
#residues 1-92 ##label DAU
#cross-references EMBL:X62502; NID:g53126; PID:g53127
COMMENT This protein is a monokine.
GENETICS
#introns 26/1: 64/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS glycoprotein
FEATURE
1-23 #domain signal sequence #status predicted #label SIG\
24-92 #product macrophage inflammatory protein 1-beta #status experimental #label MAT\
```

```
76 #binding site carbohydrate (Asn) (covalent) #status predicted
SUMMARY #length 92 #molecular-weight 10168 #checksum 7516

Query Match 77.2%; Score 71; DB 2; Length 92;
Best Local Similarity 72.7%; Pred. No. 1.15e-02;
Matches 8; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 72 QICANPSEPVW 82
Oy 1 EICADPSEWVQ 11

RESULT 18
ENTRY JN0841 #type complete
TITLE interleukin-8 - dog
ORGANISM #formal_name Canis lupus familiaris #common_name dog
DATE 19-May-1994 #sequence_revision 19-May-1994 #text_change 12-Apr-1995
ACCESSIONS JN0841
REFERENCE JN0841
#authors Ishikawa, J.; Suzuki, S.; Hotta, K.; Hirota, Y.; Mizuno, S.; Suzuki, K.
#journal Gene (1993) 131:305-306
#title Cloning of a canine gene homologous to the human interleukin-8-encoding gene.
#accession JN0841
#molecule_type DNA
#residues 1-95 ##label ISH
COMMENT This protein is a polymorphonuclear leukocytes chemotactic factor and is involved in the host defense function.
GENETICS
#introns 22/1: 67/2
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 95 #molecular-weight 10611 #checksum 3157

Query Match 77.2%; Score 71; DB 2; Length 95;
Best Local Similarity 66.7%; Pred. No. 1.15e-02;
Matches 8; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Db 75 EVCIDPKEKWVQ 86
Oy 1 EICADPSEWVQ 12

RESULT 19
ENTRY I46997 #type complete
TITLE interleukin-8 - sheep
ORGANISM #formal_name Ovis sp. #common_name sheep
DATE 21-Feb-1997 #sequence_revision 21-Feb-1997 #text_change 08-May-1997
ACCESSIONS I46997
REFERENCE I46997
#authors Seow, H.F.; Yoshimura, T.; Wood, P.R.; Colditz, I.G.
#journal Immunol. Cell Biol. (1994) 72:398-405
#title Cloning, sequencing, expression and inflammatory activity in skin of ovine interleukin-8.
#cross-references MUID:95137691
#accession I46997
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-101 ##label SFO
#cross-references GB:S74436; NID:g786590; PID:g786591
GENETICS
#introns 0/1-8
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 101 #molecular-weight 11292 #checksum 294

Query Match 77.2%; Score 71; DB 2; Length 101;
Best Local Similarity 66.7%; Pred. No. 1.15e-02;
Matches 8; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Db 75 EVCIDPKEKWVQ 86
```

OY 1 EICADPSEEWQ 12

RESULT 20

ENTRY S42496 #type complete
TITLE interleukin 8 - sheep
ORGANISM #formal_name Ovis orientalis aries, Ovis ammon aries
#common_name domestic sheep
DATE 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 08-Sep-1997

ACCESSIONS S42496
REFERENCE S42496
#authors Legastelois, I.; Greenland, T.; Arnaud, P.; Mornex, J.F.; Cordier, G.
#submission submitted to the EMBL Data Library, March 1994
#description Nucleotide sequence of ovine interleukin 8 cDNA using polymerase chain reaction.

#accession S42496
#status preliminary
#molecule_type mRNA
#residues 1-101 #label LEG
#cross-references EMBL:X78306; NID:9463253; PID:9463254
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 101 #molecular-weight 11292 #checksum 294

Query Match 77.2%; Score 71; DB 2; Length 101;
Best Local Similarity 66.7%; Pred. No. 1.15e-02;
Matches 8; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Db 75 EVCIDPKREKWO 86
OY 1 EICADPSEEWQ 12

RESULT 21

ENTRY A44253 #type complete
TITLE alveolar macrophage chemotactic factor-I (AMCF-I)
ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
DATE 30-Apr-1993 #sequence_revision 18-Nov-1994 #text_change 23-Feb-1996

ACCESSIONS A44253
REFERENCE A44253
#authors Goodman, R.B.; Foster, D.C.; Mathewes, S.L.; Osborn, S.G.; Kiljper, J.L.; Forstrom, J.W.; Martin, T.R.
#journal Biochemistry (1992) 31:10483-10490
#title Molecular cloning of porcine alveolar macrophage-derived neutrophil chemotactic factors I and II; identification of porcine IL-8 and another intercrine-alpha protein.

#cross-references MUID:93041741
#accession A44253
#status preliminary
#molecule_type mRNA; protein
#residues 1-103 #label GOO
#experimental_source alveolar macrophage
#note sequence extracted from NCBI backbone (NCBI:117415, NCBI:117416)

CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 103 #molecular-weight 11677 #checksum 8904

Query Match 77.2%; Score 71; DB 2; Length 103;
Best Local Similarity 66.7%; Pred. No. 1.15e-02;
Matches 8; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Db 75 EVCIDPKREKWO 86
OY 1 EICADPSEEWQ 12

RESULT 22

ENTRY A53096 #type complete
TITLE interleukin-8 precursor - pig

ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
DATE 02-Jun-1995 #sequence_revision 02-Jun-1995 #text_change 08-Sep-1997

ACCESSIONS A53096
REFERENCE A53096
#authors Lin, G.; Pearson, A.E.; Scamurra, R.W.; Zhou, Y.; Baarsch, M.J.; Weiss, D.J.; Murttaugh, M.P.
#journal J. Biol. Chem. (1994) 269:77-85
#title Regulation of interleukin-8 expression in porcine alveolar macrophages by bacterial lipopolysaccharide.

#accession A53096
#status preliminary
#molecule_type mRNA
#residues 1-103 #label LIN
#cross-references GB:M86923; NID:9164520; PID:9164521
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 103 #molecular-weight 11633 #checksum 8835

Query Match 77.2%; Score 71; DB 2; Length 103;
Best Local Similarity 66.7%; Pred. No. 1.15e-02;
Matches 8; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Db 75 EVCIDPKREKWO 86
OY 1 EICADPSEEWQ 12

RESULT 23

ENTRY I46857 #type complete
TITLE monocyte chemoattractant protein-1 - rabbit
ORGANISM #formal_name Oryctolagus cuniculus #common_name domestic rabbit
DATE 14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change 09-May-1997

ACCESSIONS I46857
REFERENCE I46857
#authors Yoshimura, T.; Yuhki, N.
#journal J. Immunol. (1991) 146:3483-3488
#title Neutrophil attractant/activation protein-1 and monocyte chemoattractant protein-1 in rabbit: cDNA cloning and their expression in spleen cells.

#cross-references MUID:91225489
#accession I46857
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-125 #label YOS
#cross-references GB:M57440; NID:9165469; PID:9165470
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 125 #molecular-weight 13776 #checksum 4498

Query Match 77.2%; Score 71; DB 2; Length 125;
Best Local Similarity 72.7%; Pred. No. 1.15e-02;
Matches 8; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 74 ICADPKOKRWQ 84
OY 2 ICADPSEEWQ 12

RESULT 24

ENTRY JC4912 #type complete
TITLE eotaxin - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 01-Nov-1996 #sequence_revision 01-Nov-1996 #text_change 08-Sep-1997

ACCESSIONS JC4912
REFERENCE JC4912
#authors Bartels, J.; Schlueter, C.; Richter, E.; Noso, N.; Kulke, R.; Christophers, E.; Schroeder, J.M.
#journal Biochem. Biophys. Res. Commun. (1996) 225:1045-1051
#title Human dermal fibroblasts express eotaxin: Molecular cloning, mRNA expression, and identification of eotaxin sequence variants.

#accession J04912
#status preliminary
#molecule_type mRNA
#residues 1-97 #label BAR
#cross-references EMBL:275668; NID:g1531982; PID:e251275; PID:g1531983
#experimental_source dermal fibroblast
COMMENT This protein has eosinophil specific chemotactic activity.
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS fibroblast
FEATURE
1-18 #domain signal sequence #status predicted #label SIG\
19-97 #product ectatin #status predicted #label MAT
SUMMARY #length 97 #molecular_weight 10790 #checksum 448
Query Match 76.18; Score 70; DB 2; Length 97;
Best Local Similarity 66.78; Pred. No. 1,80e-02;
Matches 8; Conservative 1; Mismatches 3; Indels 0; Gaps 0;
Db 71 DICADPKRRWQ 82
QY 1 EICADPSEWVQ 12
RESULT 25
ENTRY A37034 #type complete
TITLE interleukin-8 precursor - human
ALTERNATE_NAMES beta-thromboglobulin-like protein; fibroblast-derived neutrophil-activating factor alpha; lung carcinoma-derived chemotaxin; lymphocyte-derived neutrophil-activating factor; monocyte-derived neutrophil chemotactic factor; monocyte-derived neutrophil-activating factor
ORGANISM #formal_name Homo sapiens #common_name man
DATE 08-Dec-1992 #sequence_revision 08-Dec-1992 #text_change 13-Sep-1998
ACCESSIONS A37034; J10041; A32791; S37634; P10107; A28598; A27488; A39960; A60401; A60591; S15827; S04216; A60567; A60847; S15417; S03975; I54560; I55992; I37902; S67519
REFERENCE A37034
#authors Mukaide, N.; Shiroo, M.; Matsushima, K.
#journal J. Immunol. (1989) 143:1366-1371
#title Genomic structure of the human monocyte-derived neutrophil chemotactic factor IL-8.
#cross-references MVID:89309826
#accession A37034
#molecule_type DNA
#residues 1-99 #label MOK
#cross-references GB:M28130; NID:g186367; PID:g186368
#note the authors failed to translate the last thirty-six nucleotides of the second exon
REFERENCE J10041
#authors Matsushima, K.; Morishita, K.; Yoshimura, T.; Lavu, S.; Kobayashi, Y.; Lew, W.; Appella, E.; Kung, H.F.; Leonard, E.J.; Oppenheim, J.J.
#journal J. Exp. Med. (1988) 167:1883-1893
#title Molecular cloning of a human monocyte-derived neutrophil chemotactic factor (MDNCF) and the induction of MDNCF mRNA by interleukin 1 and tumor necrosis factor.
#cross-references MVID:88258376
#accession J10041
#molecule_type mRNA
#residues 1-99 #label MAL
#cross-references EMBL:Y00787; NID:g34518; PID:g34519
#note the sequence shows similarity to several platelet-derived factors, a v-src-induced protein, a IFN-gamma-inducible protein
REFERENCE A32791
#authors Kowalski, J.; Denhardt, D.T.
#journal Mol. Cell. Biol. (1989) 9:1946-1957
#title Regulation of the mRNA for monocyte-derived neutrophil-activating peptide in differentiating HL60 promyelocytes.
#cross-references MVID:89313739

#accession A32791
#molecule_type mRNA
#residues 1-99 #label KOW
#cross-references GB:M26383; NID:g188627; PID:g188628
REFERENCE S37634
#authors King, C.H.; Gordon, G.S.; Konieczkowski, M.; Sedor, J.R.
#submission submitted to the EMBL Data Library, February 1992
#accession S37634
#status preliminary
#molecule_type mRNA
#residues 1-97 #label KIN
#cross-references EMBL:Z11686; NID:g33958; PID:g33959
REFERENCE P10107
#authors Suzuki, K.; Miyasaka, H.; Ota, H.; Yamakawa, Y.; Tagawa, M.; Kuramoto, A.; Mizuno, S.
#journal J. Exp. Med. (1989) 169:1895-1901
#title Purification and partial primary sequence of a chemotactic protein for polymorphonuclear leukocytes derived from human lung giant cell carcinoma LU65C cells.
#cross-references MVID:89279141
#accession P10107
#molecule_type protein
#residues 23-32/'XR',35,'X',37-52,'L',54 #label SUZ
#experimental_source Lung giant cell carcinoma LU65C
REFERENCE A28598
#authors Gregory, H.; Young, J.; Schroeder, J.M.; Mrowietz, U.; Christophers, E.
#journal Biochem. Biophys. Res. Commun. (1988) 151:883-890
#title Structure determination of a human lymphocyte derived neutrophil activating peptide (LYNAP).
#cross-references MVID:88162914
#accession A28598
#molecule_type protein
#residues 28-99 #label GRE
REFERENCE A27488
#authors Walz, A.; Peyerl, P.; Aschauer, H.; Baggiolini, M.
#journal Biochem. Biophys. Res. Commun. (1987) 149:755-761
#title Purification and amino acid sequencing of NAF, a novel neutrophil-activating factor produced by monocytes.
#cross-references MVID:88106502
#accession A27488
#molecule_type protein
#residues 28-59 #label MAL
REFERENCE A39960
#authors Yoshimura, T.; Matsushima, K.; Tanaka, S.; Robinson, E.A.; Appella, E.; Oppenheim, J.J.; Leonard, E.J.
#journal Proc. Natl. Acad. Sci. U.S.A. (1987) 84:9233-9237
#title Purification of a human monocyte-derived neutrophil chemotactic factor that has peptide sequence similarity to other host defense cytokines.
#cross-references MVID:88097462
#accession A39960
#molecule_type protein
#residues 28-69 #label YOS
REFERENCE A60401
#authors Schroeder, J.M.; Sticherling, M.; Henneicke, H.H.; Preissner, W.C.; Christophers, E.
#journal J. Immunol. (1990) 144:2223-2232
#title IL-1alpha or tumor necrosis factor-alpha stimulate release of three NAP-1/IL-8-related neutrophil chemotactic proteins in human dermal fibroblasts.
#cross-references MVID:90187866
#accession A60401
#molecule_type protein
#residues 23-32 #label SCH
#experimental_source dermal fibroblasts
#note a minor component of this material (15%) includes an additional two amino acids at the amino end
REFERENCE A60591
#authors Van Damme, J.; Decock, B.; Conings, R.; Lenaerts, J.P.; Opdenacker, G.; Billiau, A.
#journal Eur. J. Immunol. (1989) 19:1189-1194
#title The chemotactic activity for granulocytes produced by virally

infected fibroblasts is identical to monocyte-derived interleukin 8.

#accession A60591
#molecule-type protein
#residues 23-33,'X',35,'X',37-42 #label VAN

REFERENCE
#authors Nakagawa, H.; Hatakeyama, S.; Ikese, A.; Miyai, H.
#journal FEBS Lett. (1991) 282:412-414
#title Generation of interleukin-8 by plasmin from AMVPR-interleukin-8, the human fibroblast-derived neutrophil chemotactic factor.
#cross-references MUID:91243843
#accession S15827
##molecule-type protein
#residues 23-33,'X',35,'X',37-47 #label FEB

REFERENCE
#authors van Damme, J.; van Beeumen, J.; Conings, R.; Decock, B.; Billiau, A.
#journal Eur. J. Biochem. (1989) 181:337-344
#title Purification of granulocyte chemotactic peptide/interleukin-8 reveals N-terminal sequence heterogeneity similar to that of beta-chromoglobulin.
#cross-references MUID:89231715
#accession S04216
##molecule-type protein
#residues 21-67 #label VA2

REFERENCE
#authors Yoshimura, T.; Robinson, E.A.; Appella, E.; Matsushima, K.; Showalter, S.D.; Skeel, A.; Leonard, E.J.
#journal Mol. Immunol. (1989) 26:87-93
#title Three forms of monocyte-derived neutrophil chemotactic factor (MNCF) distinguished by different lengths of the amino-terminal sequence.
#accession A60567
##molecule-type protein
#residues 21-33,'X',35,'X',37-47 #label Y02
#note the forms starting from positions 21, 23, and 28 represented 8%, 47%, and 45%, respectively, of total interleukin-8

REFERENCE
#authors Van Damme, J.; Van Beeumen, J.; Opendakker, G.; Billiau, A.
#journal J. Exp. Med. (1988) 167:1364-1376
#title A novel, NH-2-terminal sequence-characterized human monokine possessing neutrophil chemotactic, skin-reactive, and granulocytosis-promoting activity.
#accession A60847
##molecule-type protein
#residues 28-47 #label VA3

REFERENCE
#authors Car, B.D.; Baggiolini, M.; Walz, A.
#journal Biochem. J. (1991) 275:581-584
#title Formation of neutrophil-activating peptide 2 from platelet-derived connective-tissue-activating peptide III by different tissue proteinases.
#cross-references MUID:91248085
#accession S15417
#status preliminary
##molecule-type protein
#residues 28-99 #label CAR

REFERENCE
#authors Golds, E.E.; Mason, P.; Nyirkos, P.
#journal Biochem. J. (1989) 259:585-588
#title Inflammatory cytokines induce synthesis and secretion of gro protein and a neutrophil chemotactic factor but not beta-2-microglobulin in human synovial cells and fibroblasts.
#cross-references MUID:89246368
#accession S03975
##molecule-type protein
#residues 23-46 #label GOL

REFERENCE
#authors Hotta, K.; Hayashi, K.; Ishikawa, J.; Tagawa, M.; Hashimoto, K.; Mizuno, S.; Suzuki, K.

#journal Immunol. Lett. (1990) 24:165-170
#title Coding region structure of interleukin-8 gene of human lung giant cell carcinoma U65C cells that produce LCCP/interleukin-8: homogeneity in interleukin-8 genes.
#cross-references MUID:90346419

...
Note: remainder of annotations omitted.

Query Match 76.1%; Score 70; DB 2; Length 99;
Best Local Similarity 66.7%; Pred. No. 1.80e-02;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

DB 75 EYCDPKRHWY 86
1 EICADPSEWVQ 12

RESULT 26
ENTRY JC5295 #type complete
TITLE monocyte chemotactic protein-2 - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 02-May-1997 #sequence_revision 18-Jul-1997 #text_change 31-Oct-1997

ACCESSIONS JC5295
#authors Van Collille, E.; Froyen, G.; Nomiya, H.; Miura, R.; Fiten, P.; Van Aelst, I.; Van Damme, J.; Opendakker, G.
#journal Biochem. Biophys. Res. Commun. (1997) 231:726-730
#title Human monocyte chemotactic protein-2: cDNA cloning and regulated expression of mRNA in mesenchymal cells.
#accession JC5285
##molecule-type mRNA
#residues 1-99 #label VAN

##cross-references GB:Y10802; NID:91924937; PID:e294088; PID:91924938
#experimental_source bone marrow

COMMENT This protein belongs to the beta-chemokine family which is one of the major HIV-suppressive factors. It plays roles in autoimmune processes such as multiple sclerosis and rheumatoid arthritis and in tumor biology, and contribute to the trafficking and recruitment of the responsive cells.

GENETICS mcp-2
#gene #superfamily macrophage inflammatory protein

CLASSIFICATION
FEATURE 1-23 #domain signal sequence #status predicted #label SIG\
24-99 #product monocyte chemotactic protein-2 #status predicted #label MAT

SUMMARY #length 99 #molecular-weight 11246 #checksum 6596

Query Match 76.1%; Score 70; DB 2; Length 99;
Best Local Similarity 66.7%; Pred. No. 1.80e-02;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

DB 73 EYCDPKRHWY 84
1 EICADPSEWVQ 12

RESULT 27
ENTRY A32393 #type complete
TITLE macrophage inflammatory protein-1-alpha precursor - mouse
ALTERNATE_NAMES heparin-binding chemotaxis protein; LfG25B protein; SC1/MIP-1a; SIS alpha; stem cell inhibitor/macrophage inflammatory protein 1-alpha; T-cell activation protein alpha; rvs
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 08-Sep-1997

ACCESSIONS S11685; A32393; S04533; A53885; A30552; PS0303; A27596; S116104
#authors Grove, M.; Lowe, S.; Graham, G.; Pragnell, I.; Plumb, M.
#journal Nucleic Acids Res. (1990) 18:5561

```

#title      Sequence of the murine haemopoietic stem cell
#cross-references EMBL:91016858
#accession  S11685
#molecule_type DNA
#residues  1-92 ##label GRO
##cross-references EMBL:X53372; NID:g54062; PID:g297531
#note      the authors' translation of the nucleotide sequence
          differs at several positions from the sequence given

REFERENCE
#authors  A32393
#journal  Kwon, B.S.; Weissman, S.M.
#title    Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1963-1967
#cross-references EMBL:89184547
#accession  A32393
#molecule_type mRNA
#residues  1-92 ##label KMO
##cross-references GB:J04491; NID:g201524; PID:g201525

REFERENCE
#authors  Davatelis, G.; Tekamp-Olson, P.; Wolpe, S.D.; Hermesen, K.;
          Luedke, C.; Gallegos, C.; Colt, D.; Merryweather, J.;
          Cerami, A.
#journal  J. Exp. Med. (1988) 167:1939-1944
#title    Cloning and characterization of a cDNA for murine macrophage
          inflammatory protein (MIP), a novel monokine with
          inflammatory and chemokinetic properties.
#cross-references EMBL:88258380
#accession  S04533
#molecule_type mRNA
#residues  1-48,'E','50-90','I','92 ##label DA2
##cross-references EMBL:X12531
#note      the authors translated the codon GAG for residue 49 as
          Asp and Att for residue 91 as Asn
          the sequence has been corrected in reference A53885

REFERENCE
#authors  A53885
#journal  Davatelis, G.; Tekamp-Olson, P.; Wolpe, S.D.; Hermesen, K.;
          Luedke, C.; Gallegos, C.; Colt, D.; Merryweather, J.;
          Cerami, A.
#journal  J. Exp. Med. (1989) 170:2189
#contents  erratum
#accession  A53885
##molecule_type mRNA
#residues  1-92 ##label DAV
##cross-references EMBL:X12531; NID:g53122; PID:g53123

REFERENCE
#authors  A30552
#journal  Brown, K.D.; Zurawski, S.M.; Mosmann, T.R.; Zurawski, G.
#title    J. Immunol. (1989) 142:679-687
          A family of small inducible proteins secreted by leukocytes
          are members of a new superfamily that includes leukocytes
          and fibroblast-derived inflammatory agents, growth factors,
          and indicators of various activation processes.
#cross-references EMBL:89093958
#accession  A30552
#molecule_type mRNA
#residues  1-21,'L','23-61','A','63-92 ##label BRO
##cross-references GB:M23447; NID:g533240; PID:g533241

REFERENCE
#authors  Sherry, B.; Tekamp-Olson, P.; Gallegos, C.; Bauer, D.;
          Davatelis, G.; Wolpe, S.D.; Mastarz, F.; Colt, D.; Cerami,
          A.
#journal  J. Exp. Med. (1988) 168:2251-2259
#title    Resolution of the two components of macrophage inflammatory
          protein 1, and cloning and characterization of one of those
          components, macrophage inflammatory protein 1 beta.
#cross-references EMBL:89067830
#accession  PS0303
#molecule_type mRNA
#residues  24-33,'XX','36-54 ##label SHE

REFERENCE
#authors  A27596
#journal  Wolpe, S.D.; Davatelis, G.; Sherry, B.; Beutler, B.; Hesse,
          D.G.; Nguyen, H.T.; Moldawer, L.L.; Nathan, C.F.; Lowry,
          S.F.; Cerami, A.
#journal  J. Exp. Med. (1988) 167:570-581

```

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#title      Macrophages secrete a novel heparin-binding protein with
#cross-references EMBL:88154745
#accession  A27596
#molecule_type protein
#residues  24-33,'XX','36-42 ##label MOU
#note      26-Met, 30-Pro, and 39-Thr were also found

REFERENCE
#authors  Widmer, U.; Yang, Z.; van Deventer, S.; Manogue, K.R.;
          Sherry, B.; Cerami, A.
#journal  J. Immunol. (1991) 146:4031-4040
#title    Genomic structure of murine macrophage inflammatory
          protein-1-alpha and conservation of potential regulatory
          sequences with a human homolog, LD78.
#cross-references EMBL:91237116
#accession  I56104
#status    preliminary; translated from GB/EMBL/DBJ
#molecule_type DNA
#residues  1-92 ##label RES
##cross-references GB:M73061; NID:g199694; PID:g199695
COMMENT    This protein is a monokine.
GENETICS   23/3: 26/1; 63/2
#introns   heparin binding
CLASSIFICATION superfamily macrophage inflammatory protein
KEYWORDS   heparin binding
FEATURE    1-23
          #domain signal sequence #status predicted #label STC\
          #product macrophage inflammatory protein #status
          experimental #label MAR
          #length 92 #molecular-weight 10345 #checksum 5009

SUMMARY
Query Match 75.0%; Score 69; DB 2; Length 92;
Best Local Similarity 66.7%; Pred. No. 2.80e-02;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 71 QICADKETWQ 82
Qy 1 EICADPSDEWQ 12

RESULT 28
ENTRY 146871 #type complete
TITLE Interleukin-8- rabbit
ALTERNATE_NAMES interleukin-8- rabbit
ORGANISM Neutrophil attractant/activation protein-1
          #formal_name Oryctolagus cuniculus #common_name domestic
          rabbit
DATE 14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change
09-Aug-1997
ACCESSION 146871; S13052
REFERENCE 146857
#authors Yoshimura, T.; Yuhki, N.
#journal J. Immunol. (1991) 146:3483-3488
#title    Neutrophil attractant/activation protein-1 and monocyte
          chemotactic protein-1 in rabbit: cDNA cloning and their
          expression in spleen cells.
#cross-references EMBL:91225489
#accession  I46871
#status    preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues  1-101 ##label YOS
##cross-references GB:M57439; NID:g165552; PID:g165553

REFERENCE
#authors S13052
#journal Beaudien, B.C.; Collins, P.D.; Jose, P.J.; Totty, N.F.;
          Hsuan, J.; Waterfield, M.D.; Williams, T.J.
#title    Biochem. J. (1990) 271:797-801
          A novel neutrophil chemoattractant generated during an
          inflammatory reaction in the rabbit peritoneal cavity in
          vivo. Purification, partial amino acid sequence and
          structural relationship to interleukin 8.
#cross-references EMBL:91058518
#accession  S13052
#molecule_type protein
#residues  23-33,'X','35','X','37-46','X','48-49','I','51-53 ##label BEA

```

CLASSIFICATION #superfamily beta-thromboglobulin
KEYWORDS cytokine
SUMMARY #length 101 #molecular-weight 11402 #checksum 1085

Query Match 73.9%; Score 68; DB 2; Length 101;
Best Local Similarity 66.7%; Pred. No. 4.33e-02;
Matches 8; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Db 75 ELCLDPKRWQ 86
1:1111111111
QY 1 EICADPSEEWQ 12

RESULT 29
ENTRY I48099 #type complete
TITLE eotaxin precursor - guinea pig
ORGANISM #formal_name Cavia porcellus #common_name guinea pig
DATE 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 09-May-1997

ACCESSIONS I48099
REFERENCE I48099
#authors Rothenberg, M.E.; Luster, A.D.; Lilly, C.M.; Drazen, J.M.; Leder, P.

#journal J. Exp. Med. (1995) 181:1211-1216
#title Constitutive and allergen-induced expression of eotaxin mRNA in the guinea pig lung.

#cross-references M01D:95173589
#accession I48099
#status preliminary; translated from GB/EMBL/DBJ

##residues 1-96 ##label RES
##cross-references EMBL:U18941; NID:6687655; PID:6687656
CLASSIFICATION #superfamily macrophage inflammatory protein

SUMMARY #length 96 #molecular-weight 10753 #checksum 7236

Query Match 72.8%; Score 67; DB 2; Length 96;
Best Local Similarity 72.7%; Pred. No. 6.70e-02;
Matches 8; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Db 71 ICADPRKKWQ 81
1111111111
QY 2 ICADPSEEWQ 12

RESULT 30
ENTRY JC2478 #type complete
TITLE eotaxin - rat
ORGANISM #formal_name Rattus norvegicus #common_name Norway rat
DATE 21-Feb-1995 #sequence_revision 05-Apr-1995 #text_change 08-Sep-1997

ACCESSIONS JC2478
REFERENCE JC2478
#authors Jose, P.J.; Adcock, I.M.; Griffiths-Johnson, D.A.; Berkman, N.; Wells, T.N.C.; Williams, T.J.; Power, C.A.

#journal Biochem. Biophys. Res. Commun. (1994) 205:788-794
#title Eotaxin: Cloning of an eosinophil chemoattractant cytokine and increased mRNA expression in allergen-challenged guinea-pig lungs.

#accession JC2478
#molecule_type mRNA
##residues 1-96 ##label JOS
##cross-references EMBL:X77603; NID:9602551; PID:9602552
COMMENT This protein is identified as a potent eosinophil chemoattractant.

CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS glycoprotein
FEATURE 1-23
1-23 #domain signal sequence #status predicted #label SIG\
24-96 #product eotaxin #status predicted #label MAT\
93 #binding_site carbohydrate (Thr) (covalent) #status predicted

SUMMARY #length 96 #molecular-weight 10695 #checksum 7329

Query Match 72.8%; Score 67; DB 2; Length 96;

Best Local Similarity 72.7%; Pred. No. 6.70e-02;
Matches 8; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Db 71 ICADPRKKWQ 81
1111111111
QY 2 ICADPSEEWQ 12

Search completed: Thu Apr 1 07:40:34 1999
Job time : 14 secs.

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97 50 54.3 398 1 YARP_ECOLI HYPOTHETICAL 44.7 KD P 2.91e+01
 98 50 54.3 363 1 GUNB_CLOTH ENDOGLUCANASE B PRECUR 2.91e+01
 99 50 54.3 1180 1 EX5B_ECOLI EXOPEXYRIBONUCLEASE V 2.91e+01
 100 50 54.3 1182 1 ABL2_HUMAN TYROSINE-PROTEIN KINAS 2.91e+01

ALIGNMENTS

RESULT 1
 ID M11A_HUMAN STANDARD; PRT; 92 AA.
 AC P10147;
 DT 01-MAR-1989 (REL. 10, CREATED)
 DT 01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE)
 DT 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
 DE MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR (MIP-1-ALPHA)
 DE (TONSILLAR LYMPHOCYTE LD78 ALPHA PROTEIN) (GOS19-1 PROTEIN) (SIS-BETA)
 DE (PAT 464.1) (SMALL INDUCIBLE CYTOKINE A3).
 GN SCY3 OR MIP1A.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 86223879.
 RA OBARU K., FUKUDA M., MAEDA S., SHIMADA K.;
 RL J. BIOCHEM. 99:885-894(1986).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 89140347.
 RA ZIPPEL P.F., BALKE J., IRVING S.G., KELLY K., SIEBENLIST U.;
 RL J. IMMUNOL. 142:1582-1590(1989).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 91103879.
 RA BLUM S., FORSDYKE R.E., FORSDYKE D.R.;
 RL DNA CELL BIOL. 9:589-602(1990).
 RN [4]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 90287155.
 RA NAKAO M., NOMIYAMA H., SHIMADA K.;
 RL MOL. CELL. BIOL. 10:3646-3658(1990).
 CC -1- SIMILARITY: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.
 CC -1- INDUCTION: BY TPA OR PHA (TPA - 12-O-TETRADECANOYL PHOSBOI-13
 ACETATE (TUMOR PROMOTER); PHA - PHYTOHEMAGGLUTININ (T-CELL
 MITOGEN)).
 CC -1- SIMILARITY: LD78-ALPHA AND -BETA ARE VERY CLOSELY RELATED.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 C-C) (CHEMOKINE CC).
 CC EMBL: D00044; D1000469; -;
 CC EMBL: M23452; G188559; -;
 CC EMBL: M25315; G602453; -;
 CC EMBL: X03754; G758089; -;
 CC EMBL: X04018; G34297; ALT-SEQ.
 CC EMBL: M23178; G182847; -;
 CC EMBL: D90144; G219906; -;
 CC PIR: A24198; A24198.
 CC PIR: A30574; A30574.
 CC HSSP: P13236; 1HDM.
 CC DR MIM: 182283; -;
 CC DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 CC KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 CC FT CHAIN 1 22 POTENTIAL.
 CC FT SIGNAL 1 22 MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA.
 CC FT DISULFID 33 57 BY SIMILARITY.
 CC FT DISULFID 34 73 BY SIMILARITY.
 CC SQ SEQUENCE 92 AA; 10085 MW; C24D919 CRC32;
 Query Match 94.6%; Score 87; DB 1; Length 92;
 Best Local Similarity 83.3%; Pred. No. 5,77e-07;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 1 E1CADPSEEWQ 12
 RESULT 2
 ID M11O_HUMAN STANDARD; PRT; 93 AA.
 AC P16619;
 DT 01-AUG-1990 (REL. 15, CREATED)
 DT 01-AUG-1990 (REL. 15, LAST SEQUENCE UPDATE)
 DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
 DE TONSILLAR LYMPHOCYTE LD78 BETA PROTEIN PRECURSOR (GOS19-2 PROTEIN)
 DE (PAT 464.2).
 GN SCY3L1 OR 464.2.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-BLOOD;
 RX MEDLINE: 90287702.
 RA IRVING S.G., ZIPPEL P.F., BALKE J., MCBRIDE O.W., MORTON C.C.,
 RA BURD P.R., SIEBENLIST U., KELLY K.;
 RL NUCLEIC ACIDS RES. 18:3261-3270(1990).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 91103879.
 RA BLUM S., FORSDYKE R.E., FORSDYKE D.R.;
 RL DNA CELL BIOL. 9:589-602(1990).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 90287155.
 RA NAKAO M., NOMIYAMA H., SHIMADA K.;
 RL MOL. CELL. BIOL. 10:3646-3658(1990).
 CC -1- SIMILARITY: 464.1 AND 464.2 ARE VERY CLOSELY RELATED.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 C-C) (CHEMOKINE CC).
 CC EMBL: X52149; G296666; -;
 CC EMBL: M24110; G182849; -;
 CC EMBL: D90145; G218908; -;
 CC PIR: B30908; B30908.
 CC PIR: B30412; B30412.
 CC PIR: B35673; B35673.
 CC PIR: S10157; S10157.
 CC HSSP: P13236; 1HDM.
 CC MIM: 601395; -;
 CC DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 CC KW CYTOKINE; CHEMOTAXIS; SIGNAL.
 CC FT CHAIN 1 23 LD78 BETA / GOS19-2 / 464.2.
 CC FT DISULFID 24 58 BY SIMILARITY.
 CC FT DISULFID 34 58 BY SIMILARITY.
 CC FT DISULFID 35 74 BY SIMILARITY.
 CC SQ SEQUENCE 93 AA; 10161 MW; 21EDDB04 CRC32;
 Query Match 94.6%; Score 87; DB 1; Length 93;
 Best Local Similarity 83.3%; Pred. No. 5,77e-07;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 72 QVCADPSEEWQ 83
 QY 1 E1CADPSEEWQ 12
 RESULT 3
 ID MCP1_RAT STANDARD; PRT; 148 AA.
 AC P14844;
 DT 01-APR-1990 (REL. 14, CREATED)
 DT 01-APR-1990 (REL. 14, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (IMMEDIATE-EARLY
 SERUD-RESPONSIVE JE PROTEIN).
 DE SCY2 OR JE OR MCP1.
 OS RATIUS NORVEGICUS (RAT).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; RODENTIA.

RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-WAG/RID; TISSUE-KIDNEY;
 RX TIMMERS H.T.H.M., PRONK G.J., BOS J.L., VAN DER EB A.J.;
 RL NUCLEIC ACIDS RES. 18:23-34(1990).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 91128376.
 RA YOSHIMURA T., TAKEYA M., TAKAHASHI K.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 174:504-509(1991).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
 CC NETROPHILS.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL: X17053; G55531; -;
 DR EMBL: M57441; G205334; -;
 DR PIR: JN0128; JN0128.
 DR PIR: S07723; S07723.
 DR HSP: P13500; IMCA.
 DR PROSITE: P500472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
 FT SIGNAL 1 23 BY SIMILARITY.
 FT CHAIN 24 148 MONOCYTE CHEMOTACTIC PROTEIN 1.
 FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY
 FT DISULFID 34 59 BY SIMILARITY).
 FT DISULFID 35 75 BY SIMILARITY.
 FT CARBOHYD 126 126 POTENTIAL.
 SQ SEQUENCE 148 AA; 16460 MW; DB97F97C CRC32;
 Query Match 89.1%; Score 82; DB 1; Length 148;
 Best Local Similarity 83.3%; Pred. No. 8.23e-06;
 Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
 Db 73 EICADPNKEMVQ 84
 QY 1 EICADPSEEMVQ 12
 RESULT 4
 ID MIB.HUMAN STANDARD; PRT; 92 AA.
 AC P13336; P22617; Q13704;
 DT 01-JAN-1990 (REL. 13, CREATED)
 DT 01-JAN-1990 (REL. 13, LAST SEQUENCE UPDATE)
 DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
 DE MACROPHAGE INFLAMMATORY PROTEIN 1-BETA PRECURSOR (MIP-1-BETA) (T-CELL
 DE ACTIVATION PROTEIN 2) (ACT-2) (PAT 744) (H400) (SIS-GAMMA) (LYMPHOCYTE
 DE ACTIVATION GENE-1 PROTEIN) (LAG-1) (HC21) (SMALL INDUCIBLE CYTOKINE
 DE A4) (G-26 T LYMPHOCYTE-SECRETED PROTEIN).
 GN SCY4 OR MIP1B OR LAG1.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 89071764.
 RA LIPES M.A., NAPOLITANO M., JEANG K.-T., CHANG N.T., LEONARD W.J.;
 RL PROC. NATL. ACAD. SCI. U.S.A. 85:9704-9708(1988).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 89140347.
 RA ZIEPEL P.F., BALKE J., IRVING S.G., KELLY K., SIEBENLIST U.;
 RL J. IMMUNOL. 142:1582-1590(1989).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 89093958.
 RA BROWN K.D., ZURAWSKI S.M., MOSMANN T.R., ZURAWSKI G.;
 RL J. IMMUNOL. 142:679-687(1989).
 RN [4]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 91061800.

RA BAIGERS E., ROMAN-ROMAN S., JITSUKAWA S., GENEVEE C., MECHICHE S.,
 RA VIEGAS-PEQUIGNOT E., HERCEND T., TRIBEL F.;
 RL MOL. IMMUNOL. 27:1091-1102(1990).
 RN [5]
 RP SEQUENCE FROM N.A.
 RX TISSUE-T-CELL.
 RX MEDLINE: 89325421.
 RA CHANG H.C., REINHERZ E.L.;
 RL EUR. J. IMMUNOL. 19:1045-1051(1989).
 RN [6]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 91373378.
 RA NAPOLITANO M., MODI W.S., CEVARIO S.J., GARRA J.R., SEDANEZ H.N.,
 RA LEONARD W.J.;
 RL J. BIOL. CHEM. 266:17531-17536(1991).
 RN [7]
 RP SEQUENCE OF 6-92 FROM N.A.
 RX MEDLINE: 90038522.
 RA MILLER M.D., HATA S., WAL MALEFY R., KRANGEL M.S.;
 RL J. IMMUNOL. 143:2907-2916(1989).
 RN [8]
 RP STRUCTURE BY NMR.
 RX MEDLINE: 94182137.
 RA LODI P.J., GARRETT D.S., KUSCERSKI J., TSANG M.L.S., WEATHERBEE J.A.,
 RA LEONARD W.J., GRONENBORN A.M., CLORE G.M.;
 RL SCIENCE 263:1762-1767(1994).
 CC -1- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.
 CC -1- SUBUNIT: MONOMER.
 CC -1- INDUCTION: BY MITOGENS.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL: M23502; G533213; -;
 DR EMBL: M23516; G602455; -;
 DR EMBL: J04130; G178018; -;
 DR EMBL: X53683; G34218; -;
 DR EMBL: X53682; E35870; ALT_SEQ.
 DR EMBL: X16166; G32036; -;
 DR EMBL: M69203; G1332376; -;
 DR EMBL: M69201; G1332376; JOINED.
 DR EMBL: M69202; G1332376; JOINED.
 DR EMBL: M57503; G339727; -;
 DR PIR: A31767; A31767.
 DR PIR: B30574; B30574.
 DR PIR: D30552; D30552.
 DR PIR: JH0319; JH0319.
 DR PIR: A37411; A37411.
 DR PDB: 1HUM; 30-APR-94.
 DR PDB: 1HUN; 30-APR-94.
 DR MIM: 182284; -;
 DR PROSITE: P500472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL; 3D-STRUCTURE.
 FT SIGNAL 1 23
 FT CHAIN 24 92
 FT DISULFID 34 58
 FT DISULFID 35 74 BY SIMILARITY.
 FT CONFLICT 6 6 T -> C (IN REF. 7).
 FT CONFLICT 15 15 A -> S (IN REF. 6).
 FT CONFLICT 20 20 P -> L (IN REF. 2).
 FT CONFLICT 40 45 ARKLPK -> REASS (IN REF. 3).
 FT CONFLICT 56 56 S -> I (IN REF. 7).
 FT CONFLICT 70 70 S -> G (IN REF. 6).
 FT CONFLICT 80 80 S -> T (IN REF. 7).
 FT STRAND 29 29
 FT STRAND 33 33
 FT STRAND 45 47
 FT HELIX 50 53
 FT STRAND 63 66
 FT STRAND 72 75
 FT TURN 77 78
 FT HELIX 80 90
 SQ SEQUENCE 92 AA; 10212 MW; F18E7AFD CRC32;
 Query Match 87.0%; Score 80; DB 1; Length 92;

Best Local Similarity 75.0%; Pred. No. 2,34e-05;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Dh 72 QVCADPSESWMQ 83
:|||||
Qy 1 EICADPSEWMQ 12

RESULT 5
ID MCP4 HUMAN STANDARD; PRT; 98 AA.
AC 099616;
DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 4 PRECURSOR (MCP-4) (MONOCYTE
CHEMOTACTIC PROTEIN 4) (CK-BETA10) (NC-1).
GN SCYAL3 OR MCP4 OR NCCL.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=HEART;
RX MEDLINE: 97113354.
RA GARCIA-ZEBEDA E.A., COMBADIERE C., ROTHENBERG M.E., SARAFI M.N.,
RA LAVIGNE F., HAMID O., MURPHY P.M., LUSTER A.D.;
RL J. IMMUNOL. 157:5613-5626(1996).
RN [2]
RP SEQUENCE FROM N.A., AND SEQUENCE OF 17-98.
RC TISSUE=FETAL;
RX MEDLINE: 96235049.
RA UGCCIONI M., LOETSCHER P., FORSSMANN U., DEMALD B., LI H., LIMA S.H.,
RA LI Y., KREIDER B., GAROTTA G., THELEN M., BAGGIOLINI M.;
RL J. EXP. MED. 183:2379-2384(1996).
RN [3]
RP SEQUENCE FROM N.A., AND SEQUENCE OF 22-33.
RC TISSUE=FETAL;
RX MEDLINE: 97341179.
RA BERKHOUT T.A., SARAU H.M., MOORES K., WHITE J.R., ELSHOURBAGY N.,
RA APPELBAUM E., RAPE T.J., BRANNER M., MAKANA J., FOLEY J.J.,
RA SCHMIDT D.B., IMBURGIA C., MACINDLY D., MATTHEWS J., O'DONNELL K.,
RA O'SHANNESY D., SCOTT M., GROOT P.H.E., MACPHEE C.;
RL J. BIOL. CHEM. 272:16404-16413(1997).
RN [4]
RP SEQUENCE FROM N.A.
RA DANTE M., GIBSON A.;
RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCYTES,
CC BASOPHILS AND EOSINOPHILS, BUT NOT NEUTROPHILS. SIGNALS THROUGH
CC CCR2B AND CCR3 RECEPTORS. PLAYS A ROLE IN THE ACCUMULATION OF
CC LEUKOCYTES AT BOTH SIDES OF ALLERGIC AND NONALLERGIC INFLAMMATION.
CC MAY BE INVOLVED IN THE RECRUITMENT OF MONOCYTES INTO THE ARTERIAL
CC WALL DURING THE DISEASE PROCESS OF ARTERIOSCLEROSIS. MAY PLAY A
CC ROLE IN THE MONOCYTE ATTRACTION IN TISSUES CHRONICALLY EXPOSED TO
CC EXOGENOUS PATHOGENS.
CC -1- MASS SPECTROMETRY: MW-9314; MW_ERR-30; METHOD-MALDI; RANGE-17-98.
CC -1- MASS SPECTROMETRY: MW-8760; MW_ERR-30; METHOD-MALDI; RANGE-22-98.
CC -1- MASS SPECTROMETRY: MW-8575; MW_ERR-30; METHOD-MALDI; RANGE-24-98.
CC -1- INDUCTION: BY INTERLEUKIN-1 AND TNF-ALPHA.
CC -1- TISSUE SPECIFICITY: WIDELY EXPRESSED. FOUND IN SMALL INTESTINE,
CC THYMUS, COLON, LUNG, TRACHEA, STOMACH AND LYMPH NODE. LOW LEVELS
CC SEEN IN THE PULMONARY ARTERY SMOOTH MUSCLE CELLS.
CC -1- THIS PROTEIN CAN BIND HEPARIN.
CC -1- PTH: ONE MAJOR ISOFORM MCP-4, AND TWO MINOR ISOFORMS (LA) MCP-4 AND
CC (FNPOLA) MCP-4 ARE PRODUCED BY DIFFERENTIAL SIGNAL CLEAVAGE.
CC (LA) MCP-4 IS ABOUT 30 FOLD LESS ACTIVE THAN MCP-4.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
CC EMBL: U46767; G1732123; -.
CC EMBL: AC002462; G2340091; -.
CC DR MIM: 601391; -.
CC DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
CC CYTOKINE; CHEMOTAXIS; SIGNAL; GLYCOPROTEIN; INFLAMMATORY RESPONSE.

FT SIGNAL 1 23
FT CHAIN 24 98
FT MOD_RES 24 24
FT DISULFID 34 58
FT DISULFID 35 74
FT CARBOHYD 29 29
SQ SEQUENCE 98 AA; 10986 MW; D52F6EC CRC32;
Query Match 87.0%; Score 80; DB 1; Length 98;
Best Local Similarity 83.3%; Pred. No. 2,34e-05;
Matches 10; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Dh 72 EICADPSEWMQ 83
:|||||
Qy 1 EICADPSEWMQ 12

RESULT 6
ID MCP3 HUMAN STANDARD; PRT; 99 AA.
AC P80098;
DT 01-DEC-1992 (REL. 24, CREATED)
DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 3 PRECURSOR (MCP-3) (MONOCYTE
CHEMOTACTIC PROTEIN 3) (NC28).
GN SCYAT7 OR MCP3.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A., AND SEQUENCE OF 31-67 AND 71-99.
RC MEDLINE: 93213290.
RA OPDENAKKER G., FROEN G., FITTEN P., PROOST P., VAN DAMME J.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 191:535-542(1993).
RN [2]
RP SEQUENCE FROM N.A.
RC MEDLINE: 94375065.
RA OPDENAKKER G., FITTEN P., NYS G., FROEN G., VAN ROY N., SPELEMAN F.,
RA LAUREYS G., VAN DAMME J.;
RL GENOMICS 21:403-408(1994).
RN [3]
RP SEQUENCE FROM N.A.
RC MEDLINE: 93305913.
RA MINTY A., CHALON P., GUILLEMOT J.C., KAGHAD M., LIANZUN P.,
RA MAGAZIN M., MILOUX B., MINTY C., RAMOND P., VITA N., LOPKER J.,
RA SHIRE D., FERRARA P., CAPUT D.;
RL EUR. CYTOKINE NETW. 4:99-110(1993).
RN [4]
RP SEQUENCE OF 30-99.
RC TISSUE=OSTEOSARCOMA;
RX MEDLINE: 92308855.
RA VAN DAMME J., PROOST P., LENAERTS J.-P., OPDENAKKER G.;
RL J. EXP. MED. 176:59-65(1992).
RN [5]
RP STRUCTURE BY NMR, AND SUBUNIT.
RX MEDLINE: 97053697.
RA KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.;
RL FEBS LETT. 395:277-282(1996).
RN [6]
RP STRUCTURE BY NMR.
RX MEDLINE: 97263733.
RA MEINIER S., BERASSAU J.-M., GUILLEMOT J.-C., FERRARA P., DABRON H.;
RL BIOCHEMISTRY 36:4412-4422(1997).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND
CC EOSINOPHILS, BUT NOT NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR
CC ACTIVITY. ALSO INDUCES THE RELEASE OF GELATINASE B. THIS PROTEIN
CC CAN BIND HEPARIN.
CC -1- SUBUNIT: MONOMER.
CC -1- PTM: O-GLYCOSYLATED.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
CC EMBL: X72308; G313708; ALT_INIT.
CC DR EMBL: X72309; -; NOT_ANNOTATED_CDS.

DR EMBL: X71087; G288399; -.
DR EMBL: X71087; G288398; ALT_INIT.
DR EMBL: X71087; G288397; ALT_INIT.
DR PIR: JC1478; JC1478.
DR PIR: S32222; S32222.
DR PIR: A54678; A54678.
DR PDB: INCV: 15-OCT-97.
DR MIM: 158106; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; HEPARIN-BINDING; GLYCOPROTEIN; SIGNAL;
RN INFLAMMATORY RESPONSE; 3D-STRUCTURE.
FT SIGNAL 1 23
FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 3.
FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID.
FT DISULFID 34 59 BY SIMILARITY.
FT DISULFID 35 75 BY SIMILARITY.
FT CARBOHYD 29 29 POTENTIAL.
FT CONFLICT 30 30 T -> K (IN REF. 4).
FT CONFLICT 68 70 MISSING (IN REF. 4).
SQ SEQUENCE 99 AA; 11200 MW; 7502E19C CRC32;

Query Match 87.0%; Score 80; DB 1; Length 99;
Best Local Similarity 75.0%; Pred. No. 2.34e-05;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 73 EICADPTOKWQ 84
1 EICADPSEWQ 12

RESULT 7
ID MCP1_CAVPO STANDARD; PRT; 120 AA.
AC Q08782;
DT 01-NOV-1995 (REL. 32, CREATED)
DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
DE CHEMOTACTIC PROTEIN-1).
GN SCYA2 OR MCP1.
OS CAVIA PORCELLUS (GUINEA PIG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=Z; TISSUE=SPLEEN;
RX MEDLINE: 93267104.
RA YOSHIMURA T.;
PL J. IMMUNOL. 150:5025-5032(1993).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS.
CC -1- SUBUNIT: MONOMER OR HOMODIMER, IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: L04985; G349821; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
FT SIGNAL 1 23
FT CHAIN 24 120 MONOCYTE CHEMOTACTIC PROTEIN 1.
FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY
FT SIMILARITY).
FT DISULFID 33 57 BY SIMILARITY.
FT DISULFID 34 73 BY SIMILARITY.
FT CARBOHYD 97 97 POTENTIAL.
SQ SEQUENCE 120 AA; 13741 MW; 22FAD257 CRC32;

Query Match 84.8%; Score 78; DB 1; Length 120;
Best Local Similarity 66.7%; Pred. No. 6.60e-05;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 71 EVCADPTOKWQ 82
1 EICADPSEWQ 12

RESULT 8
ID MCP1_MOUSE STANDARD; PRT; 148 AA.
AC P10148;
DT 01-MAR-1989 (REL. 10, CREATED)
DT 01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE GROWTH FACTOR-INDUCIBLE PROTEIN 1 PRECURSOR (MCP-1) (PLATELET-DERIVED
DE MONOCYTE CHEMOTACTIC PROTEIN 1)
GN SCYA2 OR MCP1 OR JE.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 89093129.
RA KAWAHARA R.S.; DEUEL T.F.;
RL J. BIOL. CHEM. 264:679-682(1989).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 88234501.
RA ROLLINS B.J.; MORRISON E.D.; STILES C.D.;
RL PROC. NATL. ACAD. SCI. U.S.A. 85:3738-3742(1988).
RN [3]
RP SEQUENCE OF 26-42.
RX MEDLINE: 91293127.
RA VAN DAMME J., DECOCK B., BERTINI R., CONINGS R., LENAERTS J.-P.,
RA PUT W., OPDENAKKER G., MANTOVANI A.;
RL EUR. J. BIOCHEM. 199:223-229(1991).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS.
CC -1- SUBUNIT: MONOMER OR HOMODIMER, IN EQUILIBRIUM (BY SIMILARITY).
CC -1- INDUCTION: BY PLATELET-DERIVED GROWTH FACTOR.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: J04467; G387169; -.
DR EMBL: M19681; G387168; -.
DR PIR: A30209; A30209.
DR PIR: A30861; A30861.
DR PIR: S16226; S16226.
DR HSSP: P13500; IMCA.
DR MGD: MGI:98259; SCYA2.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
FT SIGNAL 1 23
FT CHAIN 24 148 MONOCYTE CHEMOTACTIC PROTEIN 1.
FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY
FT SIMILARITY).
FT DISULFID 34 59 BY SIMILARITY.
FT DISULFID 35 75 BY SIMILARITY.
FT CARBOHYD 126 126 POTENTIAL.
SQ SEQUENCE 148 AA; 16326 MW; B7572B8C CRC32;

Query Match 84.8%; Score 78; DB 1; Length 148;
Best Local Similarity 75.0%; Pred. No. 6.60e-05;
Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 73 EVCADPKKWWQ 84
1 EICADPSEWQ 12

RESULT 9
ID M1B_RABIT STANDARD; PRT; 92 AA.
AC P46632;
DT 01-NOV-1995 (REL. 32, CREATED)
DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
DE MACROPHAGE INFLAMMATORY PROTEIN 1-BETA PRECURSOR (MIP-1-BETA) (IMMUNE
DE ACTIVATION PROTEIN 2) (ACT-2).
GN SCYA4.
OS ORYCTOLAGUS CUNICULUS (RABBIT).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;

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OC EUTHERIA; LAGOMORPHA.
RN [1]
RP SEQUENCE FROM N.A
RC STRAIN-NEW ZEALAND WHITE;
RX MEDLINE; 94188228.
RA MORI S., GOTO K., GOTO F., MUTAKAMI K., OKAWARA S., YOSHINAGA M.;
RL INT. IMMUNOL. 6:149-156(1994).
CC -1- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES
CC (BY SIMILARITY).
CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
CC EMBL; D1/402: G599578; -.
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 23
FT CHAIN 24 92 BY SIMILARITY.
FT DISULFID 34 58 MACROPHAGE INFLAMMATORY PROTEIN 1-BETA.
FT DISULFID 35 74 BY SIMILARITY.
SQ SEQUENCE 92 AA; 10066 MW; A629AB2D CRC32;

Query Match 83.7%; Score 77; DB 1; Length 92;
Best Local Similarity 66.7%; Pred. No. 1,10e-04;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0

Db 72 OVCANPSESQW 83
QY 1 EICADPSESWQ 12

RESULT 10
ID MCPL_HUMAN STANDARD; PRT; 99 AA.
AC P13500.
DT 01-JAN-1990 (REL. 13, CREATED)
DT 01-JAN-1990 (REL. 13, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE CHEMOTACTIC
DE AND ACTIVATING FACTOR) (MCAF) (MONOCYTE SECRETORY PROTEIN JE)
DE (MONOCYTE CHEMOATTRACTANT PROTEIN 1) (HC11) (SMALL INDUCIBLE CYTOKINE
DE A2).
DE SCYA2 OR MCPL.
GN HOMO SAPIENS (HUMAN).
OS EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
CC [1]
RN RP SEQUENCE FROM N.A.
RX MEDLINE; 8915862.
RA FUTUTANI Y., NOMURA H., NOTAKE M., OYAMADA Y., FUKUI T., YAMADA M.,
RA LARSEN C.G., OPENHEIM J.J., MATSUSHIMA K.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 159:249-255(1989).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE; 90097860.
RA ROLLINS B.J., STIER P., ERNST T., WONG G.G.;
RL MOL. CELL. BIOL. 9:4687-4695(1989).
RN [3]
RP SEQUENCE FROM N.A.
RX MEDLINE; 89153605.
RA YOSHIMURA T., YOHKI N., MOORE S.K., APPELBA E., LERMAN M.I.,
RA LEONARD E.J.;
RL FEBS LETT. 244:487-493(1989).
RN [4]
RP SEQUENCE FROM N.A.
RX MEDLINE; 90290466.
RA SHY Y.J., LI Y.S., KOLATTUKUDY P.E.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 169:346-351(1990).
RN [5]
RP SEQUENCE FROM N.A.
RX MEDLINE; 91207938.
RA CHANG H.C., HSU F., FREEMAN G.J., GRIFFIN J.D., REINHERT E.L.;
RL INT. IMMUNOL. 1:388-399(1989).
RN [6]
RP SEQUENCE FROM N.A.

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DR EMBL: S69738; G545465; -
DR EMBL: S71513; G240868; -
DR EMBL: A17786; G641145; -
DR PIR: A35474; A35474.
DR PIR: S03339; S03339.
DR PDB: 1DOK: 12-MAR-97.
DR PDB: 1DOL: 12-MAR-97.
DR PDB: 1DOM: 14-OCT-96.
DR PDB: 1DON: 14-OCT-96.
DR PDB: 1MCA: 15-OCT-94.
DR MIM: 158105; -
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; 3D-STRUCTURE.
FT SIGNAL 1 23
FT CHAIN 24 99
FT MOD_RES 24 24
FT DISULFID 34 59
FT DISULFID 35 75
FT CARBOHYD 37 37
FT VARIANT 76 76
FT MUTAGEN 24 24
FT MUTAGEN 25 32
FT MUTAGEN 24 85
FT MUTAGEN 24 91
FT MUTAGEN 26 26
FT MUTAGEN 29 29
FT MUTAGEN 47 47
FT MUTAGEN 50 50
FT MUTAGEN 51 51
FT MUTAGEN 53 53
FT MUTAGEN 91 91
SQ SEQUENCE 99 AA; 11025 MW; 5355B695 CRC32;
POTENTIAL.
A->T.
MISSING: LOSS OF ACTIVITY.
MISSING: LOSS OF ACTIVITY.
MISSING: 90% REDUCTION IN ACTIVITY.
D->A: 90% REDUCTION IN ACTIVITY.
N->A: 50% REDUCTION IN ACTIVITY.
R->F: 95% REDUCTION IN ACTIVITY.
S->Q: 40% REDUCTION IN ACTIVITY.
Y->D: LOSS OF ACTIVITY.
R->L: LOSS OF ACTIVITY.
D->L: 90% REDUCTION IN ACTIVITY.

Query Match 83.7%; Score 77; DB 1; Length 99;
Best Local Similarity 75.0%; Pred. No. 1.10e-04;
Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 73 EICADPKKQWQ 84
1 EICADPSEWQ 12

RESULT 11
ID MCPL CANFA STANDARD; PRT: 101 AA.
AC P52203; -
DT 01-OCT-1996 (REL. 34, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
DE CHEMOTACTIC PROTEIN-1).
GN SCY2 OR MCP1.
OS CANIS FAMILIARIS (DOG).
OC EUKARYOTA; METAFOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; CARNIVORA.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-JUGULAR VEIN ENDOTHELIAL;
RX MEDLINE: 97176620.
RA KUWAR A.G., BALLANTYNE C.M., MICHAEL L.H., KUKIELA G.L., YOKER K.A.,
RA LINDSEY M.L., HAWKINS H.K., BIRDSALL H.H., MACRAY C.R., LAROSA G.J.,
RA ROSSEN R.D., SMITH C.W., ERTMAN M.L.;
RA CIRCULATION 95:693-700(1997).
RL
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS. IMPORTANT FACTOR IN THE COURSE OF THE INFLAMMATORY
CC REACTION TO REPERFUSION OF THE PREVIOUSLY ISCHEMIC MYOCARDIUM.
CC MAY PLAY A SIGNIFICANT ROLE IN MONOCYTE TRAFFICKING INTO THE
CC REPERFUSED MYOCARDIUM.
CC -1- SUBUNIT: MONOMER OR HOMODIMER. IN EQUILIBRIUM (BY SIMILARITY).
CC -1- INDUCTION: BY TNF-ALPHA.
CC -1- TISSUE SPECIFICITY: ENDOTHELIUM OF SMALL VEINS AND INTRAFASCICULAR
CC VEINS, AND INFILTRATING LEUKOCYTES.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).

DR EMBL: U29653; G1144186; -
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23
FT CHAIN 24 101
FT MOD_RES 24 24
FT DISULFID 34 59
FT DISULFID 35 75
SQ SEQUENCE 101 AA; 11121 MW; A7075B14 CRC32;
POTENTIAL.
A->T.
MISSING: LOSS OF ACTIVITY.
MISSING: LOSS OF ACTIVITY.
MISSING: 90% REDUCTION IN ACTIVITY.
D->A: 90% REDUCTION IN ACTIVITY.
N->A: 50% REDUCTION IN ACTIVITY.
R->F: 95% REDUCTION IN ACTIVITY.
S->Q: 40% REDUCTION IN ACTIVITY.
Y->D: LOSS OF ACTIVITY.
R->L: LOSS OF ACTIVITY.
D->L: 90% REDUCTION IN ACTIVITY.

Query Match 83.7%; Score 77; DB 1; Length 101;
Best Local Similarity 75.0%; Pred. No. 1.10e-04;
Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 73 EICADPKKQWQ 84
1 EICADPSEWQ 12

RESULT 12
ID MIB-CHICK STANDARD; PRT: 90 AA.
AC Q90826; -
DT 01-NOV-1997 (REL. 35, CREATED)
DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MACROPHAGE INFLAMMATORY PROTEIN 1-BETA HOMOLOG PRECURSOR.
OS GALLUS GALLUS (CHICKEN).
OC EUKARYOTA; METAFOA; CHORDATA; VERTEBRATA; TETRAPODA; AVES; NEOGNATHAE;
OC GALLIFORMES.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-BONE MARROW;
RX MEDLINE: 95369710.
RA PETRENKO O., ENRIETTO P.J.;
RL GENE 160:305-306(1995).
RN [2]
RP SEQUENCE OF 14-90 FROM N.A.
RA PETRENKO O., ENRIETTO P.J.;
RA SUBMITTED (JUL-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -1- FUNCTION: MONOCYTE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES
CC (BY SIMILARITY).
CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: L34553; G509596; -
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL.
FT SIGNAL 1 21
FT CHAIN 22 90
FT DISULFID 32 56
FT DISULFID 33 72
FT CONFLICT 87 87
SQ SEQUENCE 90 AA; 9969 MW; B5637084 CRC32;

Query Match 82.6%; Score 76; DB 1; Length 90;
Best Local Similarity 58.3%; Pred. No. 1.84e-04;
Matches 7; Conservative 4; Mismatches 1; Indels 0; Gaps 0;

Db 70 EVCANPDMWQ 81
1 EICADPSEWQ 12

RESULT 13
ID MIIA RAT STANDARD; PRT: 92 AA.
AC P50229; -
DT 01-OCT-1996 (REL. 34, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR (MIP-1-ALPHA).
GN SCY3 OR MIP1A.
OS RATTUS NORVEGICUS (RAT).

CC EUKARYOTA; METAEOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-CD-1; TISSUE-LUNG;
 RX MEDLINE; 95298037.
 RA SHI M.M., GODLESKI J.J., PAULAKIS J.D.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 211:289-295(1995).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC STRAIN-LONG EVANS; TISSUE-LUNG;
 RX MEDLINE; 95238980.
 RA SHANLEY T.P., SCHMAL H., FRIEDL H.P., JONES M.L., WARD P.A.;
 RL J. IMMUNOL. 154:4793-4802(1995).
 RN [3]
 RP SEQUENCE OF 24-57.
 RC STRAIN-WISTAR;
 RX MEDLINE; 96183056.
 RA NAKAGAWA H., SHIOTA S., TAKANO K., SHIRATA F., KATO H.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 220:945-948(1996).
 CC -1- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.
 CC HAS CHEMOTACTIC ACTIVITY FOR MONOCYTES, NEUTROPHILS, EOSINOPHILS,
 CC BASOPHILS, AND LYMPHOCYTES. REQUIRED FOR LONG TNF-ALPHA
 CC PRODUCTION, NEUTROPHIL RECRUITMENT AND SUBSEQUENT LUNG INJURY AND
 CC MAY FUNCTION AS AN AUTOCRINE MEDIATOR FOR THE MACROPHAGE
 CC PRODUCTION OF TNF-ALPHA WHICH IN TURN UP-REGULATES VASCULAR
 CC ADHESION MOLECULES REQUIRED FOR NEUTROPHIL INFILUX. THIS PROTEIN
 CC BINDS HEPARIN.
 CC -1- INDUCTION: BY LIPOPOLYSACCHARIDE (LPS).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL: U22414; G790633; -.
 DR EMBL: U06435; G459150; -.
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KM CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL; HEPARIN-BINDING.
 FT SIGNAL 1 23
 FT CHAIN 24 92 MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA.
 FT DISULFID 34 57 BY SIMILARITY.
 FT DISULFID 35 73 BY SIMILARITY.
 FT CONFLICT 6 6 A -> T (IN REF. 2).
 FT CONFLICT 57 57 C -> W (IN REF. 2 AND 3).
 SQ SEQUENCE 92 AA; 10335 MW; F48CF89F CRC32;
 Query Match 82.6%; Score 76; DB 1; Length 92;
 Best Local Similarity 75.0%; Pred. No. 1.84e-04;
 Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;
 Db 71 QICADPKETWVQ 82
 QY 1 EICADPSEWVQ 12
 RESULT 14
 ID MCP1_PIG STANDARD; PRT; 99 AA.
 AC P42831;
 DT 01-NOV-1995 (REL. 32, CREATED)
 DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
 GN SCY42.
 OS SUS SCROFA (PIG).
 CC EUKARYOTA; METAEOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 94183284.
 RA HOSANG K., KNOKE I., KLAUDINY J., WEMPE F., WUTTKE W., SCHEIT K.H.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 199:962-968(1994).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC TISSUE-BRAIN;
 RA ZACH O.R.F.;
 RL SUBMITTED (JUL-1994) TO EMBL/GENBANK/DBJ DATA BANKS.

CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
 CC NEUTROPHILS.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL: Z48479; G683717; -.
 DR EMBL: X79416; G872313; -.
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KM CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
 FT SIGNAL 1 23
 FT CHAIN 24 99 BY SIMILARITY.
 FT MOD_RES 24 24 MONOCYTE CHEMOTACTIC PROTEIN 1.
 FT DISULFID 34 59 PYROGLUTAMIC CARBOXYLIC ACID (BY
 FT DISULFID 35 75 BY SIMILARITY).
 SQ SEQUENCE 99 AA; 10976 MW; ECC3AFB4 CRC32;
 Query Match 82.6%; Score 76; DB 1; Length 99;
 Best Local Similarity 66.7%; Pred. No. 1.84e-04;
 Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
 Db 73 EICAEPRKRWVQ 84
 QY 1 EICADPSEWVQ 12
 RESULT 15
 ID MCPB_BOVIN STANDARD; PRT; 74 AA.
 AC P80343;
 DT 01-FEB-1995 (REL. 31, CREATED)
 DT 01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1B (MCP-1B) (FRAGMENT).
 OS BOS TAURUS (BOVINE).
 CC EUKARYOTA; METAEOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RP SEQUENCE.
 RC TISSUE-KIDNEY;
 RX MEDLINE; 95034774.
 RA PROOST P., WUYTS A., LENAERTS J.-P., VAN DAMME J.;
 RL BIOCHEMISTRY 33:13406-13412(1994).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
 CC NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR ACTIVITY. ALSO INDICES
 CC THE RELEASE OF GELATINASE B. THIS PROTEIN CAN BIND HEPARIN.
 CC -1- PPM: THE N-TERMINAL IS BLOCKED.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KM CYTOKINE; CHEMOTAXIS; HEPARIN-BINDING.
 FT NON_TER 1 1
 FT DISULFID 9 34 BY SIMILARITY.
 FT DISULFID 10 50 BY SIMILARITY.
 SQ SEQUENCE 74 AA; 8360 MW; 66172F08 CRC32;
 Query Match 80.4%; Score 74; DB 1; Length 74;
 Best Local Similarity 66.7%; Pred. No. 5.06e-04;
 Matches 8; Conservative 1; Mismatches 3; Indels 0; Gaps 0;
 Db 48 EICAEPRKRWVQ 59
 QY 1 EICADPSEWVQ 12
 RESULT 16
 ID MIB_RAT STANDARD; PRT; 92 AA.
 AC P50230;
 DT 01-OCT-1996 (REL. 34, CREATED)
 DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
 DT 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
 DE MACROPHAGE INFLAMMATORY PROTEIN 1-BETA PRECURSOR (MIP-1-BETA).
 GN SCY44 OR MIP1B.
 OS RATUS NORVEGICUS (RAT).

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OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=LONG EVANS; TISSUE=LUNG;
RL JONES M.L., SHANLEY T.P., SCHMAL H., FRIEDL H.P., WARD P.A.;
RL SUBMITTED (FEB-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -1- FUNCTION: MONOMER WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.
CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
DR EMBL: U06434; G459148; -.
DR PROSITE: PS00472; SMALL CYTOKINES CC; 1.
KM CYTOKINE; CHEMOKINIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 23
FT CHAIN 1 23
FT DISULFID 24 92
FT DISULFID 34 58
FT DISULFID 35 74
SQ SEQUENCE 92 AA; 10234 MW; 30828006 CRC32;

Query Match
Best local Similarity 80.4%; Score 74; DB 1; Length 99;
Matches 9; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 72 QICADPSEWV 82
QY 1 EICADPSEWV 11

RESULT 17
ID MCP2.PIG STANDARD; PRT; 99 AA.
AC P49873;
DT 01-OCT-1996 (REL. 34, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
DE CHEMOTACTANT PROTEIN 2).
GN SCY8 OR MCP2.
OS SUS SCROFA (PIG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 95091716.
RA HOSANG K.K., KNOKE I.I., KLAUDINY J.J., WEMPE F.F., WUTTKE W.W.,
RA SCHEIT K.K.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 205:148-153(1994).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN
CC CAN BIND HEPARIN.
CC -1- SUBUNIT: MONOMER OR HOMODIMER, IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
DR EMBL: Z48480; G683719; -.
DR PROSITE: PS00472; SMALL CYTOKINES CC; 1.
KM CYTOKINE; CHEMOKINIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23
FT CHAIN 1 23
FT MOD_RES 24 24
FT MOD_RES 24 24
FT DISULFID 34 59
FT DISULFID 35 75
SQ SEQUENCE 99 AA; 10903 MW; B1620BCF CRC32;

Query Match
Best local Similarity 80.4%; Score 74; DB 1; Length 99;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 73 EVCADPQOKWV 84
QY 1 EICADPSEWVQ 12

RESULT 18

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ID MCP2.BOVIN STANDARD; PRT; 99 AA.
AC Q09141;
DT 01-NOV-1995 (REL. 32, CREATED)
DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
DE CHEMOTACTANT PROTEIN 2).
GN SCY8 OR MCP2.
OS BOS TAURUS (BOVINE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 94114084.
RA WEMPE F., HANES J., SCHEIT K.H.;
RL DNA CELL BIOL. 13:1-8(1994).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN
CC CAN BIND HEPARIN.
CC -1- SUBUNIT: MONOMER OR HOMODIMER, IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
DR EMBL: S67954; E118856; -.
DR PROSITE: PS00472; SMALL CYTOKINES CC; 1.
KM CYTOKINE; CHEMOKINIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23
FT CHAIN 1 23
FT MOD_RES 24 24
FT MOD_RES 24 24
FT DISULFID 34 59
FT DISULFID 35 75
SQ SEQUENCE 99 AA; 10900 MW; 9BA2CD26 CRC32;

Query Match
Best local Similarity 80.4%; Score 74; DB 1; Length 99;
Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 73 DVCADPQOKWV 84
QY 1 EICADPSEWVQ 12

RESULT 19
ID EOTA.RAT STANDARD; PRT; 97 AA.
AC P97545; Q08780;
DT 15-JUL-1998 (REL. 36, CREATED)
DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
OS RATUUS NORVEGICUS (RAT).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RA WILLIAMS C.M., NEWTON D.J., WILSON S.A., COLEMAN J.C.,
RA FLAVAGAN B.F.;
RL SUBMITTED (DEC-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RX TISSUE=LUNG.
RA ISHIT Y.;
RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
CC DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
CC FEATURE OF ALLERGIC INFLAMMATORY REACTIONS (BY SIMILARITY).
CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
DR EMBL: Y08358; E274141; -.
DR EMBL: U96637; G208785; -.
DR PROSITE: PS00472; SMALL CYTOKINES CC; 1.
KM EOSINOPHIL; CYTOKINE; CHEMOKINIS; GLYCOPROTEIN; SIGNAL.

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INFLAMMATORY RESPONSE.
 FT SIGNAL 1 23 POTENTIAL.
 FT CHAIN 24 97 EOTAXIN.
 FT DISULFID 32 57 BY SIMILARITY.
 FT DISULFID 33 73 BY SIMILARITY.
 FT CARBOHYD 94 94 POTENTIAL.
 FT CONFLICT 3 3 L-> S (IN REF. 2).
 SO SEQUENCE 97 AA: 10851 MW: 0584ED45 CRC32;

Query Match 79.3%; Score 73; DB 1; Length 97;
 Best Local Similarity 75.0%; Pred. No. 8.35e-04;
 Matches 9; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Db 71 EICADPKKKKVVQ 82
 1 EICADPSEEMVQ 12

RESULT 20
 ID EOTA_MOUSE STANDARD; PRT: 97 AA.
 AC P48298;
 DT 01-FEB-1996 (REL. 33, CREATED)
 DT 01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
 GN SCV11.
 OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-LUNG.
 RX MEDLINE: 96004658.
 RA ROCHENBERG M.E., LUSTER A.D., LEDER P.;
 RA PROC. NATL. ACAD. SCI. U.S.A. 92:8960-8964(1995).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC STRAIN=C57BL/6J; TISSUE=LUNG;
 RX MEDLINE: 96158746.
 RA GONZALO J.-A., JIA G.-Q., AGUIRRE V., FRIEND D., COYLE A.J.,
 RA JENKINS N.A., LIN G.-S., KATZ H., LICHTMAN A., COPPLAND N.G., KOPE M.,
 RA GUTIERREZ-RAMOS J.-C.;
 RL IMMUNITY 4:1-14(1996).
 CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
 DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS (A PROMINENT
 FEATURE OF ALLERGIC INFLAMMATORY REACTIONS), BUT NOT
 LYMPHOCYTES, MACROPHAGES OR NEUTROPHILS.
 CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
 CC -1- TISSUE SPECIFICITY: EXPRESSED CONSTITUTIVELY IN THE THYMUS.
 CC EXPRESSION INDUCIBLE IN THE LUNG (TYPE I ALVEOLAR EPITHELIAL
 CELLS), INTESTINE, HEART, SPLEEN, KIDNEY.
 CC -1- INDUCTION: BY INTERFERON-GAMMA AND LIPOPOLYSACCHARIDE (LPS).
 CC -1- PFM: O-GLYCOSYLATED (PROBABLE).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 C-C) (CHEMOKINE CC).
 DR EMBL: U26426; G985911; -;
 DR EMBL: U40672; G1113937; -;
 DR MGD: MGI:103576; SCYAL1.
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KW EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
 KM INFLAMMATORY RESPONSE.
 FT SIGNAL 1 23 POTENTIAL.
 FT CHAIN 24 97 EOTAXIN.
 FT DISULFID 32 57 BY SIMILARITY.
 FT DISULFID 33 73 BY SIMILARITY.
 SO SEQUENCE 97 AA: 10893 MW: F85A96BC CRC32;

Qy 1 EICADPSEEMVQ 12

RESULT 21
 ID MCP5_MOUSE STANDARD; PRT: 104 AA.
 AC 062401;
 DT 01-NOV-1997 (REL. 35, CREATED)
 DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 5 PRECURSOR (MCP-5) (MCP-1 RELATED
 CHEMOKINE).
 GN SCYAL2 OR MCP5.
 OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 97079149.
 RA JIA G.-Q., GONZALO J.A., LLOYD C., KREMER L., LU L., MARTINEZ A.C.,
 RA WENSHIL B.K., GUTIERREZ-RAMOS J.C.;
 RL J. EXP. MED. 184:1939-1951(1996).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 97149438.
 RA SARAFI M.N., GARCIA-ZEPEDA E.A., MACLEAN J.A., CHARO I.F.,
 RA LUSTER A.D.;
 RL J. EXP. MED. 185:99-109(1997).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS EOSINOPHILS, MONOCYTES,
 AND LYMPHOCYTES BUT NOT NEUTROPHILS. POTENT MONOCYTE ACTIVE
 CHEMOKINE THAT SIGNALS THROUGH CCR2. INVOLVED IN ALLERGIC
 INFLAMMATION AND THE HOST RESPONSE TO PATHOGENS AND MAY PLAY A
 PIVOTAL ROLE DURING EARLY STAGES OF ALLERGIC LUNG INFLAMMATION.
 CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
 CC -1- TISSUE SPECIFICITY: PREDOMINANTLY EXPRESSED IN THE LYMPH NODES AND
 THYMUS. ALSO FOUND IN THE SALIVARY GLANDS CONTAINING LYMPH NODES,
 BREAST, HEART, LUNG, BRAIN, SMALL INTESTINE, KIDNEY AND COLON.
 CC -1- INDUCTION: BY IFN-GAMMA AND LIPOPOLYSACCHARIDE (LPS).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 C-C) (CHEMOKINE CC).
 DR EMBL: U50712; G1477582; -;
 DR EMBL: U66670; G1881583; -;
 DR MGD: MGI:108224; SCYAL2.
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
 FT SIGNAL 1 22 BY SIMILARITY.
 FT CHAIN 23 104 MONOCYTE CHEMOTACTIC PROTEIN 5.
 FT DISULFID 33 58 BY SIMILARITY.
 FT DISULFID 34 74 BY SIMILARITY.
 SO SEQUENCE 104 AA: 11659 MW: 08FA6C35 CRC32;

Query Match 79.3%; Score 73; DB 1; Length 104;
 Best Local Similarity 81.8%; Pred. No. 8.35e-04;
 Matches 9; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Db 72 EICADPKKKKVVQ 82
 1 EICADPSEEMVQ 11

RESULT 22
 ID MIP4_HUMAN STANDARD; PRT: 89 AA.
 AC P55774;
 DT 01-NOV-1997 (REL. 35, CREATED)
 DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MACROPHAGE INFLAMMATORY PROTEIN 4 PRECURSOR (MIP-4) (PULMONARY AND
 DE ACTIVATED MACROPHAGE ASSOCIATED CC CHEMOKINE 1) (AMAC-1).
 GN SCV18 OR MIP4.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]

RP SEQUENCE FROM N.A.
 RA LI H., RUBEN S.;
 RL PATENT NUMBER US5504003.
 RN [2]
 RP SEQUENCE FROM N.A., AND PARTIAL SEQUENCE.
 RC TISSUE-AORTA, AND LUNG;
 RX MEDLINE: 97376836.
 RA HISHIMA K., IMAI T., BABA M., SHODAI K., ISHIZUKA K.,
 RA NAKAGAWA T., TSUBOTA J., TAKEYA M., SAKAKI Y., TAKATSUKI K.,
 RA MIRA R., OPDENAKKER G., VAN DAMME J., YOSHIE O., NOMIYAMA H.;
 RL J. IMMUNOL. 159:1140-1149(1997).
 RN [3]
 RP SEQUENCE FROM N.A.
 RA KOBELTA V., MOELLER C., POLITZ O., HAKIY N., ORPANOS C.E., GOERDT S.;
 RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [4]
 RP DISCUSSION OF SEQUENCE.
 RX MEDLINE: 97275308.
 RA WELLS T.N.C., PEITSCH M.C.;
 RL J. LEUKOC. BIOL. 61:545-550(1997).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS LYMPHOCYTES BUT NOT
 CC MONOCYTES OR GRANULOCYTES. MAY BE INVOLVED IN B CELL MIGRATION
 CC INTO B CELL FOLLICLES IN LYMPH NODES.
 CC -1- TISSUE SPECIFICITY: EXPRESSED AT HIGH LEVELS IN THE LUNG. A LOWER
 CC LEVEL EXPRESSION IS SEEN IN LYMPHOID TISSUES SUCH AS LYMPH NODES,
 CC THYMUS AND APPENDIX.
 CC -1- INDUCTION: BY LIPOPOLYSACCHARIDE (LPS).
 CC -1- SIMILARITY: BELONGS TO THE INTERCINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL: AB000221; D1022520; -;
 DR EMBL: Y13710; E321838; -;
 DR PROSITE: PS00472; SMALL_CYTOKINES.CC; 1.
 KM CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 20
 FT CHAIN 21 89
 FT DISULFID 30 54 BY SIMILARITY.
 FT DISULFID 31 70 BY SIMILARITY.
 SQ SEQUENCE 89 AA; 9849 MW; 052AA3DC CRC32;
 Query Match 78.3%; Score 72; DB 1; Length 89;
 Best Local Similarity 66.7%; Pred. No. 1.38e-03;
 Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
 Db 68 QICADPNKKWQ 79
 QY 1 EICADPSEWQ 12
 RESULT 23
 ID EORTA_HUMAN STANDARD: PRT: 97 AA.
 AC P51671; P50877; Q92490; Q92491;
 DT 01-OCT-1996 (REL. 34, CREATED)
 DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
 DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
 DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
 GN SCYA11.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAFOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUKARYOTA; METAFOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 96181758.
 RA GARCIA-ZEPEDA E.A., ROTHENBERG M.E., OMNEY T.R., LEDER P.,
 RA LUSTER A.D.;
 RL NAT. MED. 2:449-456(1996).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 96189937.
 RA POWATH P.D., QIN S., RINGLER D.J., CLARK-LEWIS I., WANG J., KASSAM N.,
 RA SMITH H., SHI X., GONZALO J.A., NEWMAN W., GUTIERREZ-RAMOS J.C.,
 RA MACKAY C.R.;
 RL J. CLIN. INVEST. 97:604-612(1996).
 RN [3]

RP SEQUENCE FROM N.A.
 RC TISSUE-SMALL INTESTINE;
 RX MEDLINE: 96205964.
 RA KITAHARA M., NAKAJIMA T., IMAI T., HARADA S., COMBADIERE C.,
 RA TIFFANY H.L., MURPHY P.M., YOSHIE O.;
 RL J. BIOL. CHEM. 271:7725-7730(1996).
 RN [4]
 RP SEQUENCE FROM N.A., SEQUENCE OF 60-65 AND 75-88, AND VARIANTS.
 RC TISSUE-FORESKIN;
 RX MEDLINE: 96374440.
 RA BARRETS J., SCHLUETER C., RICHTER E., NOSO N., KULKE R.,
 RA CHRISTOPHERS E., SCHROEDER J.M.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 225:1045-1051(1996).
 RN [5]
 RP SEQUENCE FROM N.A.
 RC TISSUE-PLACENTA;
 RX MEDLINE: 97312708.
 RA GARCIA-ZEPEDA E.A., ROTHENBERG M.E., WEREMOWICZ S., SARAFI M.N.,
 RA MORTON C.C., LUSTER A.D.;
 RL GENOMICS 41:471-476(1997).
 RN [6]
 RP SEQUENCE FROM N.A.
 RC TISSUE-LUNG;
 RX MEDLINE: 97445071.
 RA HEIN R., SCHLUETER C., KULKE R., CHRISTOPHERS E., SCHROEDER J.M.,
 RA BARRETS J.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 237:537-542(1997).
 CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLEGENS, THIS PROTEIN
 CC DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
 CC FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.
 CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
 CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
 CC -1- INDUCTION: BY TNF-ALPHA, IL-1-ALPHA AND INTERFERON GAMMA.
 CC -1- SIMILARITY: BELONGS TO THE INTERCINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL: U46573; G1280141; -;
 DR EMBL: U34780; G1185440; -;
 DR EMBL: D49372; G1952241; -;
 DR EMBL: 269291; E221070; -;
 DR EMBL: 275668; E251275; -;
 DR EMBL: 275669; E251258; -;
 DR EMBL: U46572; G2088509; -;
 DR EMBL: 292709; E329504; -;
 DR MIM: 601156; -;
 DR PROSITE: PS00472; SMALL_CYTOKINES.CC; 1.
 KM EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
 KV INFLAMMATORY RESPONSE; POLYMORPHISM.
 FT SIGNAL 1 23
 FT CHAIN 24 97
 FT DISULFID 32 57 EOTAXIN.
 FT DISULFID 33 73 BY SIMILARITY.
 FT VARIANT 7 7 L -> P (IN CLONE 34).
 FT VARIANT 23 23 L -> T (IN CLONE 53).
 FT VARIANT 51 51 R -> S (IN CLONE 34).
 FT VARIANT 79 79 K -> R (IN CLONE 53).
 SQ SEQUENCE 97 AA; 10732 MW; 6C0F3D98 CRC32;
 Query Match 78.3%; Score 72; DB 1; Length 97;
 Best Local Similarity 66.7%; Pred. No. 1.38e-03;
 Matches 8; Conservative 1; Mismatches 3; Indels 0; Gaps 0;
 Db 71 DICADPKRRWQ 82
 QY 1 EICADPSEWQ 12
 RESULT 24
 ID MCPA_BOVIN STANDARD: PRT: 99 AA.
 AC P28291;
 DT 01-DEC-1992 (REL. 24, CREATED)
 DT 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
 DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1A PRECURSOR (MCP-1A) (MCP-1) (ACIDIC

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DE SEMINAL FLUID PROTEIN).
OS BOS TAURUS (BOVINE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
CC EUTHERIA; ARTIODACTYLA.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-SEMINAL PLASMA;
RA WEMPE F., HENSCHEN A., SCHEIT K.H.;
RL DNA CELL BIOL. 10:671-679(1991).
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE-SEMINAL PLASMA;
RA WEMPE F., EINSPIANIER R., SCHEIT K.H.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 183:232-237(1992).
RN [3]
RP SEQUENCE FROM N.A.
RA MEDLINE; 9438337.
RA WEMPE F., KUHLMANN J.K., SCHEIT K.H.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 202:1272-1279(1994).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL; L32659; G624394; -.
DR EMBL; M84602; G163395; -.
DR PIR; A39296; A39296.
DR PIR; JC2336; JC2336.
DR HSSP; P13500; IMCA.
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
DR CYTOKINE; CHEMOTAXIS; SIGNAL.
FT SIGNAL 1 23 BY SIMILARITY.
FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 1A.
FT MOD_RES 24 24 PYROLIDONE CARBOXYLIC ACID (BY
FT SIMILARITY).
FT DISULFID 34 59 BY SIMILARITY.
FT DISULFID 35 75 BY SIMILARITY.
FT SEQUENCE 99 AA; 1114 MW; C8F5821D CRC32;
SQ
Query Match 78.3%; Score 72; DB 1; Length 99;
Best Local Similarity 66.7%; Pred. No. 1.38e-03;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
Db 73 ELCADPROMKVO 84
1 EICADPSEWVO 12
RESULT 25
ID M1B_MOUSE STANDARD; PRT; 92 AA.
AC P14097;
DT 01-JAN-1990 (REL. 13, CREATED)
DT 01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MACROPHAGE INFLAMMATORY PROTEIN 1-BETA PRECURSOR (MIP-1-BETA) (H400
DE PROTEIN) (SIS-GAMMA) (ACT2).
GN SCYA4 OR MIP1B.
OS MUS MUSCULUS (MURINE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
CC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RA MEDLINE; 89067830.
RA SHERY B., TEKAMP-OLSON P., GALLEGO C., BAUER D., DAVATELLIS G.,
RA WOPE S.D., MASIRAZ F., COIT D., CERAMI A.;
RL J. EXP. MED. 168:2251-2259(1988).
RN [2]
RP SEQUENCE FROM N.A.
RA MEDLINE; 89093958.
RA BROWN K.D., ZURAWSKI S.M., MOSMANN T.R., ZURAWSKI G.;
RL J. IMMUNOL. 142:679-687(1989).
RN [3]

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RP SEQUENCE FROM N.A.
RC STRAIN-DBA/2J; TISSUE-LIVER;
RA DUBBERSIES P., LEPEPRE F., BAILLEUL B., GROVE M., PRAGNELL I.,
RA PLUMB M.A.;
RL SUBMITTED (OCT-1991) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -1- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.
CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL; M23503; G533245; -.
DR EMBL; M35590; G19697; -.
DR EMBL; X62502; G53127; -.
DR PIR; G30552; C30552.
DR PIR; J10088; J10088.
DR HSSP; P13236; IHDM.
DR MGD; MGI:98261; SCYA4.
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
DR CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 23
FT CHAIN 24 92 MACROPHAGE INFLAMMATORY PROTEIN 1-BETA.
FT DISULFID 34 58 BY SIMILARITY.
FT DISULFID 35 74 BY SIMILARITY.
FT CONFLICT 75 75 A -> P (IN REF. 1).
FT CONFLICT 79 79 E -> Q (IN REF. 1).
FT CONFLICT 88 88 D -> H (IN REF. 1).
FT SEQUENCE 92 AA; 10168 MW; C543B91F CRC32;
SQ
Query Match 77.2%; Score 71; DB 1; Length 92;
Best Local Similarity 72.7%; Pred. No. 2.26e-03;
Matches 8; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
Db 72 QICAMPSEWVO 82
1 EICADPSEWVO 11
RESULT 26
ID CCCL_HUMAN STANDARD; PRT; 93 AA.
AC Q16627;
DT 01-NOV-1997 (REL. 35, CREATED)
DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE CHEMOKINE CC-1 PRECURSOR (HCC-1) (NCC-2).
GN SCYA4 OR NCC2.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
CC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A., AND SEQUENCE OF 20-93.
RC TISSUE-BONE MARROW;
RA MEDLINE; 96136773.
RA SCHULZ-KNAPPE P., MAERGERT H.-J., DEWALD B., MEYER M., CETIN Y.,
RA KUBBIES M., TOMECKZOWSKI J., KIRCHHOFF K., RAIDA M., ADERMAN K.,
RA KIST A., REINECKE M., SILLARD R., PARDIGOL A., UGUCCIONI M.,
RA BAGGIOLINI M., FORSMANN W.-G.;
RL J. EXP. MED. 183:295-299(1996).
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE-LIVER;
RA PARDIGOL A., MAERGERT H.-J., ZUCHT H.D., FORSMANN W.-G.,
RA SCHULZ-KNAPPE P.;
RL SUBMITTED (MAY-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [3]
RP SEQUENCE FROM N.A.
RA PARDIGOL A., MAERGERT H.-J., CIESIAK A., HILL O., SCHULZ-KNAPPE P.,
RA FORSMANN W.-G.;
RL SUBMITTED (OCT-1995) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -1- FUNCTION: HAS WEAK ACTIVITIES ON HUMAN MONOCYTES AND ACTS VIA
CC RECEPTORS THAT ALSO RECOGNIZE MIP-1 ALPHA. IT INDUCED
CC INTRACELLULAR CA2+ CHANGES AND ENZYME RELEASE, BUT NO CHEMOTAXIS,
CC AT CONCENTRATIONS OF 100-1,000 NM, AND WAS INACTIVE ON T
CC LYMPHOCYTES, NEUTROPHILS, AND EOSINOPHIL LEUCOCYTES. ENHANCES THE

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CC EUTHERIA; ARTIODACTYLA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE; 94103307.
RA LIN G., PARSON A.E., SCAMURRA R.W., ZHOU Y., BAARSCH M.J.,
RA WEISS D.J., MURTAUGH M.P.;
RL J. BIOL. CHEM. 269:77-85(1994).
RN [2]
RP SEQUENCE FROM N.A.
RA SANJANMALA M.;
RL SUBMITTED (JUL-1991) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [3]
RP SEQUENCE FROM N.A., AND SEQUENCE OF 26-45.
RC TISSUE-LUNG;
RX MEDLINE; 93041741.
RA GOODMAN R.B., FOSTER D.C., MATHEWS S.L., OSBORN S.G., KUIJPER J.L.,
RA FORSTROM J.W., MARTIN T.R.;
RL BIOCHEMISTRY 31:10483-10490(1992).
RN [4]
RP REVISION TO 23.
RA GOODMAN R.B.;
RL SUBMITTED (MAR-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [5]
RP SEQUENCE OF 26-45.
RC STRAIN-YORKSHIRE;
RX MEDLINE; 91217086.
RA GOODMAN R.B., FORSTROM J.W., OSBORN S.G., CHI E.Y., MARTIN T.R.;
RL J. BIOL. CHEM. 266:8455-8463(1991).
CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
CC BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
CC RESPONSE TO AN INFLAMMATORY STIMULUS.
CC -1- SUBUNIT: HOMODIMER.
CC -1- TISSUE SPECIFICITY: ALVEOLAR MACROPHAGES.
CC -1- INDUCTION: BY LIPOPOLYSACCHARIDE.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
CC C-X-C) (CHEMOKINE CXC).
DR EMBL; M86923; G164521; -.
DR EMBL; X61151; G516197; -.
DR EMBL; M99367; G1235612; -.
DR PIR; A44253; A44253.
DR PIR; A39819; A39819.
DR HSSP; P10145; 3118.
DR PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 25
FT CHAIN 26 103
FT DISULFID 34 61
FT DISULFID 36 77
FT CONFLICT 33 34
FT CONFLICT 87 87
SQ SEQUENCE 103 AA; 11633 MW; A012D59D CRC32;

Query Match 77.2%; Score 71; DB 1; Length 103;
Best Local Similarity 66.7%; Pred. No. 2.26e-03;
Matches 8; Conservative 1; Mismatches 3; Indels 0; Gaps 0;
Db 75 EYCLDPKREKVO 86
OY 1 EICADPSEEWQ 12

RESULT 30
ID CCG3_HUMAN STANDARD; PRT; 109 AA.
AC Q13954;
DI 01-NOV-1997 (REL. 35, CREATED)
DI 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
DI 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE CHEMOKINE CC-3 PRECURSOR (HCC-3).
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]

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RP SEQUENCE FROM N.A.
RC TISSUE-LIVER;
RA PARDIGOL A., MARGERT H.-J., ZUCHT H.D., FORSSMANN W.-G.,
RA SCHULZ-KNAPPE P.;
RL SUBMITTED (MAY-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL; Z70293; E233858; -.
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; SIGNAL.
FT SIGNAL 1 2
FT CHAIN 109
FT DISULFID 51 75
FT DISULFID 52 91
SQ SEQUENCE 109 AA; 12297 MW; 9AE90F93 CRC32;

Query Match 77.2%; Score 71; DB 1; Length 109;
Best Local Similarity 54.5%; Pred. No. 2.26e-03;
Matches 6; Conservative 4; Mismatches 1; Indels 0; Gaps 0;
Db 90 VCTNPSDKRWQ 100
OY 2 ICADPSEEWQ 12

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Search completed: Thu Apr 1 07:39:09 1999
Job time : 9 secs.

M O S E R E (TM)

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Msrch_bp protein - protein database search, using Smith-Waterman algorithm
Run on: Thu Apr 1 07:39:27 1999; Maspar time 4.93 Seconds
Tabular output not generated. 134.366 Million cell updates/sec

Title: >US-08-927-939-12
Description: (1-12) from US08927939.pep
Perfect Score: 92
Sequence: 1 EICADPSEEMVQ 12

Scoring table:
PAM 150
Gap 15

Searched: 180763 seqs, 55169189 residues

Post-processing: Minimum Match 0%
Listing first 100 summaries

Database:

sptrembl8
1:sp-archaea 2:sp-bacteria 3:sp-fungi 4:sp-human
5:sp_invertebrate 6:sp_mammal 7:sp_mhc 8:sp_organelle
9:sp_phase 10:sp_plant 11:sp_rodent 12:sp_unclassified
13:sp_vertebrate 14:sp_virus

Statistics: Mean 25.394; Variance 35.421; scale 0.717

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description	Pred. No.
1	87	94.6	80	4	014745 LD78 ALPHA BETA PRECUR	2.41e-06
2	80	87.0	120	4	015467 IL-10-INDUCIBLE CHEMOK	8.89e-05
3	72	78.3	119	4	000175 MP1F-2.	4.70e-03
4	72	78.3	133	11	009002 SMALL INDUCIBLE CYTORI	4.70e-03
5	72	78.3	133	11	009006 BETA CHEMOKINE EXODUS-	4.70e-03
6	71	77.2	95	14	098158 ORF K6.	7.62e-03
7	71	77.2	134	4	000585 BETA CHEMOKINE EXODUS-	7.62e-03
8	68	72.9	395	11	035933 FRACTALKINE.	3.18e-02
9	68	72.9	395	11	035188 NEUTROTACTIN.	3.18e-02
10	67	72.8	92	11	088430 CC CHEMOKINE ABCD-1.	5.09e-02
11	66	71.7	109	4	043927 CX3C CHEMOKINE PRECURS	8.11e-02
12	65	70.7	397	4	P78423 CX3C CHEMOKINE PRECURS	1.29e-01
13	64	69.6	97	11	089093 CC CHEMOKINE ST38 PREC	2.04e-01
14	63	68.5	93	4	000626 MACROPHAGE-DERIVED CHE	3.21e-01
15	61	66.3	94	14	058157 VM1P-1B.	7.87e-01
16	61	66.3	97	13	057411 LYMPHOTACTIN PRECURSOR	7.87e-01
17	61	66.3	203	14	067634 ECO Q PROTEIN (FRAGMEN	7.87e-01
18	60	65.2	96	11	P97884 CC CHEMOKINE EXODUS.	1.22e+00
19	60	65.2	104	13	073912 K60 PROTEIN PRECURSOR.	1.22e+00
20	60	65.2	2180	5	001768 SIMILARITY TO EGF-LIKE	1.22e+00

21	59	64.1	91	4	043646 RANTES PRECURSOR.	1.90e+00
22	59	64.1	97	6	062812 INTERLEUKIN-8 (FRAGMEN	1.90e+00
23	59	64.1	448	2	P95531 LARGE SUBUNIT OF TERTI	1.90e+00
24	59	64.1	570	11	061093 CYTOCHROME B-245, BETA	1.90e+00
25	58	63.0	95	4	099664 CHEMOKINE EXODUS.	2.93e+00
26	58	63.0	552	5	046178 RADIAL SPOKEHEAD.	2.93e+00
27	57	62.0	96	13	090825 CYTOKINE.	4.99e+00
28	57	62.0	321	2	069128 PUTATIVE EPIMERASE/DEH	4.99e+00
29	57	62.0	629	5	P91819 RNA POLYMERASE II LARG	4.99e+00
30	57	62.0	1142	4	014324 FAST MBP-C.	4.99e+00
31	56	60.9	857	13	P79708 LOW-DENSITY LIPOPROTEI	6.86e+00
32	56	60.9	1089	5	026155 V-SERA 1.	6.86e+00
33	55	59.8	101	13	093442 LECA-1 PROTEIN PRECURS	1.04e+01
34	55	59.8	108	11	070460 EBI-1 LIGAND CHEMOKINE	1.04e+01
35	55	59.8	109	11	055038 B LYMPHOCYTE CHEMOATTR	1.04e+01
36	55	59.8	306	5	023084 COSMID ZC8.	1.04e+01
37	55	59.8	949	5	P90956 T01D3.3.	1.04e+01
38	54	58.7	158	5	026381 BTN-HOMEODOMAIN GENE B	1.58e+01
39	54	58.7	399	14	068409 ORF UL154.	1.58e+01
40	54	58.7	801	6	062817 LOW DENSITY LIPOPROTEI	1.58e+01
41	54	58.7	801	6	077619 T24B8.7 PROTEIN.	1.58e+01
42	54	58.7	1396	5	P90865 TYPE 14 (HRV14), COMPL	2.38e+01
43	53	57.6	146	14	084738 14 (HRV-14), RNA SEQUE	2.38e+01
44	53	57.6	146	14	P84776 VIF PROTEIN.	2.38e+01
45	53	57.6	252	14	019966 R08H2.2.	2.38e+01
46	53	57.6	339	5	017996 T22D1.12 PROTEIN.	2.38e+01
47	53	57.6	391	5	044690 MYOSIN BINDING PROTEIN	2.38e+01
48	53	57.6	476	4	016866 LARGE SUBUNIT RNA POLY	2.38e+01
49	53	57.6	633	5	001364 C54D1.6 PROTEIN.	2.38e+01
50	53	57.6	811	5	018825 CC CHEMOKINE-1.	3.55e+01
51	52	56.5	101	13	093238 CONSERVED HYPOTHETICAL	3.55e+01
52	52	56.5	176	1	029296 MYOSIN BINDING PROTEIN	3.55e+01
53	52	56.5	477	4	013203 MYOSIN BINDING PROTEIN	3.55e+01
54	52	56.5	483	11	P70402 TOLUENE-3-MONOXYGENAS	3.55e+01
55	52	56.5	501	2	051939 MYOSIN BINDING PROTEIN	3.55e+01
56	52	56.5	537	13	005623 MYOSIN BINDING PROTEIN	3.55e+01
57	52	56.5	631	5	P90678 RNA POLYMERASE II LARG	3.55e+01
58	52	56.5	761	11	008762 PROTEASE, SERINE, 12 N	3.55e+01
59	52	56.5	859	14	097013 ENVELOPE GLYCOPROTEIN	3.55e+01
60	52	56.5	901	11	035376 NEUROPLIN 2.	3.55e+01
61	52	56.5	906	11	035377 NEUROPLIN 2.	3.55e+01
62	52	56.5	909	4	014820 NEUROPLIN 2.	3.55e+01
63	52	56.5	909	4	035373 NEUROPLIN 2.	3.55e+01
64	52	56.5	914	11	035378 NEUROPLIN 2.	3.55e+01
65	52	56.5	925	11	035276 NEUROPLIN 2.	3.55e+01
66	52	56.5	926	11	035374 NEUROPLIN 2.	3.55e+01
67	52	56.5	926	11	014821 NEUROPLIN-2.	3.55e+01
68	52	56.5	931	11	035375 NEUROPLIN 2.	3.55e+01
69	52	56.5	931	4	060462 VASCULAR ENDOTHELIAL C	3.55e+01
70	52	56.5	4199	2	P74440 HYPOTHETICAL 442.4 KD	5.29e+01
71	51	55.4	193	2	054993 CELL MYCELULUM-ASSOCIAT	5.29e+01
72	51	55.4	305	2	068920 FERN.	5.29e+01
73	51	55.4	350	11	009132 PROTEIN TYROSINE KINAS	5.29e+01
74	51	55.4	377	3	060088 HYPOTHETICAL 41.6 KD P	5.29e+01
75	51	55.4	489	10	049123 1-A-AMINO CYCLOPROPANE	5.29e+01
76	51	55.4	492	2	087082 ALKALINE MONOOXYGENASE.	5.29e+01
77	51	55.4	527	5	061090 SERINE RICH PROTEIN HO	5.29e+01
78	51	55.4	617	5	002259 F44E1.1.	5.29e+01
79	51	55.4	991	4	015043 KIA0333 (FRAGMENT).	5.29e+01
80	50	54.3	112	9	038665 NINK PROTEIN.	7.82e+01
81	50	54.3	125	14	088491 NONSTANDARD PROTEIN	7.82e+01
82	50	54.3	167	2	007858 TRANSPOSASE.	7.82e+01
83	50	54.3	167	2	047302 INSH.	7.82e+01
84	50	54.3	158	14	093045 31.5 KD REPA PROTEIN (	7.82e+01
85	50	54.3	258	14	093048 31.5 KD REPA PROTEIN (	7.82e+01
86	50	54.3	258	14	073468 31.5 KD REPA PROTEIN.	7.82e+01
87	50	54.3	272	14	039668 31.5 KD REPA PROTEIN.	7.82e+01
88	50	54.3	272	14	083479 31.5 KD REPA PROTEIN.	7.82e+01
89	50	54.3	272	14	073558 31.5 KD REPA PROTEIN.	7.82e+01
90	50	54.3	272	14	073478 31.5 KD REPA PROTEIN.	7.82e+01
91	50	54.3	342	14	055834 NS5 PROTEIN (FRAGMENT)	7.82e+01
92	50	54.3	358	14	088520 GENES FOR US1, US10, U	7.82e+01
93	50	54.3	390	10	040625 DNA-BINDING FACTOR OF	7.82e+01

94 50 54.3 590 10 023316 HYPOTHETICAL 65.7 KD P 7.82e+01
95 50 54.3 822 2 056939 HMRH. 7.82e+01
96 50 54.3 1123 4 015497 SLOW MYBP-C. 7.82e+01
97 50 54.3 1134 5 P91312 SIMILAR TO CALCIUM-ACT 7.82e+01
98 50 54.3 1465 4 Q13018 180 KD SECRETORY PHOSF 7.82e+01
99 50 54.3 6875 6 028733 TITIN (FRAGMENT). 7.82e+01
100 50 54.3 26926 4 Q10466 TITIN, HEART ISOFORM N 7.82e+01

ALIGNMENTS

RESULT 1
ID 014745 PRELIMINARY; PRT: 80 AA.
AC 014745;
DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE L078 ALPHA BETA PRECURSOR (FRAGMENT).
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-BRAIN;
RA ISHIZUKA K., IGATA-YI R., NARUSE K., NAKASHIMA H., OHUCHI K.,
RA KATSURAGI S., KIN Y., OHMOTO Y., NOMIYAMA H., IIO M., MIURA R.,
RA MIYAKAWA T.;
RL SUBMITTED (AUG-1995) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: D63785; G961440; -
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
DR PFAM: PF00048; 118; 1.
KW SIGNAL.
FT NON_TER 1 1
FT SIGNAL <1 16 POTENTIAL.
FT CHAIN 17 >80 LD78 ALPHA BETA.
FT NON_TER 80 80
SQ SEQUENCE 80 AA: 8857 MW: 387F1C6 CRC32;
Query Match 94.6%; Score 87; DB 4; Length 80;
Best Local Similarity 83.3%; Pred. No. 2.41e-06;
Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
Db 65 QVCADPSEWVQ 76
QY 1 EICADPSEWVQ 12
RESULT 2
ID 015467 PRELIMINARY; PRT: 120 AA.
AC 015467;
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE IL-10-INDUCIBLE CHEMOKINE.
GN ILINCK OR SCYAL6.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RA HEERICK J.A., HELMS A., GORMAN D., ZLOTNIK A.;
RL SUBMITTED (NOV-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE-LIVER;
RA SHOUDDI K., HIESHIMA K., FUKUDA S., IIO M., MIURA R., IMAI T.,
RA YOSHIE O., NOMIYAMA H.;
RL BIOCHIM. BIOPHYS. ACTA 0:0-0(1998).
RN [3]
RP SEQUENCE FROM N.A.
RA NOMIYAMA H.;
RT "Structure of a region of 181 kb containing five CC chemokine genes."
RL SUBMITTED (AUG-1998) TO EMBL/GENBANK/DBJ DATA BANKS.

RN [4]
RP SEQUENCE FROM N.A.
RX MEDLIN: 98308096.
RA YOUN B.S., ZHANG S., BROOMEYER H.E., ANTOL K., FRASER M.J. JR.,
RA HANGOC G., KWON B.S.;
RT "Isolation and characterization of lmc, a novel lymphocyte and
RT monocyte chemoattractant human CC chemokine, with myelosuppressive
RT activity."
RL BIOCHEM. BIOPHYS. RES. COMMUN. 247:217-222(1998).
DR EMBL: U91746; G2581781; -
DR EMBL: AB007454; D1024963; -
DR EMBL: AF088219; G319365; -
DR PFAM: AF055467; G3395776; -
DR PFAM: PF00048; 118; 1.
KW SIGNAL.
SQ SEQUENCE 120 AA: 13600 MW: A079DF66 CRC32;
Query Match 87.0%; Score 80; DB 4; Length 120;
Best Local Similarity 50.0%; Pred. No. 8.89e-05;
Matches 6; Conservative 6; Mismatches 0; Indels 0; Gaps 0;

Db 74 EVCNPNDDWVQ 85
QY 1 EICADPSEWVQ 12
RESULT 3
ID 000175 PRELIMINARY; PRT: 119 AA.
AC 000175;
DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE MPEF-2.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RA PATEL V.P., KREIDER B.L., LI Y., LI H., LEUNG K., SALCEDO T.,
RA MARDELLI B., PIPPALA V., GENTZ S., THOTAKURA R., PARMELEE D.,
RA GENTZ R., GAROTTA G.;
J. EXP. MED. 0:0-0(0).
DR EMBL: U85768; G1916252; -
DR PFAM: PF00048; 118; 1.
SQ SEQUENCE 119 AA: 13119 MW: CDF526F0 CRC32;
Query Match 78.3%; Score 72; DB 4; Length 119;
Best Local Similarity 58.3%; Pred. No. 4.70e-03;
Matches 7; Conservative 4; Mismatches 1; Indels 0; Gaps 0;

Db 72 QFCGDPKQEWVQ 83
QY 1 EICADPSEWVQ 12
RESULT 4
ID 009002 PRELIMINARY; PRT: 133 AA.
AC 009002;
DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE SMALL INDUCIBLE CYTOKINE A21 (TCA4).
GN SCYA21.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCUROGNATHI; MURIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-THYMUS;
RA TANABE S., LU Z., LUO Y., OUCKENBUSH E.J., BERMAN M.A.,
RA COLLINS-RACIE L.A., MI S., REILLY C., LO D., JACOBS K.A., DORF M.E.;
RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]

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RP SEQUENCE FROM N.A.
RX MEDLINE: 97400322.
RA HEDRICK J.A., ZLOTNIK A.;
RT "Identification and characterization of a novel beta chemokine
RT containing six conserved cysteines.";
RL J. IMMUNOL. 159:1589-1593(1997).
[3]
RP SEQUENCE FROM N.A.
RA HEDRICK J.A., ZLOTNIK A.;
RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AF006637; G2209189; -.
DR EMBL: AF001980; G2624927; -.
DR MGD: MGI:1097677; SCYA21.
DR PFAM: PF00048; 118; 1.
SQ SEQUENCE 133 AA; 14558 MW; C0532523 CRC32;

Query Match
Best Local Similarity 66.7%; Score 72; DB 11; Length 133;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 73 ELCANPEGWQ 84
1 EICADPSEEWQ 12

RESULT 5 PRELIMINARY; PRT; 133 AA.
ID 009006
AC 009006;
DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE BETA CHEMOKINE EXODUS-2.
GN SCYA21.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAEOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCUROGNATHI, MORIDAE; MORINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-TOTAL FETUS;
RX MEDLINE: 97444139.
RA HROMAS R., KIM C.H., KLEMSZ M., KRATHWOHL M., FIFE K., COOPER S.,
RA SCHNITZLEIN-BICK C., BROXMEYER H.E.;
RT "Isolation and characterization of Exodus-2, a novel C-C chemokine
RT with a unique 3'-amino acid carboxyl-terminal extension.";
RL J. IMMUNOL. 159:2554-2558(1997).
[2]
RP SEQUENCE FROM N.A.
RC TISSUE-TOTAL FETUS;
RX HROMAS R.A.;
RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: U08322; G3169697; -.
DR MGD: MGI:1097677; SCYA21.
DR PFAM: PF00048; 118; 1.
SQ SEQUENCE 133 AA; 14600 MW; B34A5E22 CRC32;

Query Match
Best Local Similarity 66.7%; Score 72; DB 11; Length 133;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 73 ELCANPEGWQ 84
1 EICADPSEEWQ 12

RESULT 6 PRELIMINARY; PRT; 95 AA.
ID 098158
AC 098158; 012569;
DT 01-FEB-1997 (TREMBLREL. 02, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE ORF K6.
GN KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS.
OC VIRUSES; DSDNA VIRUSES; NO RNA STAGE; HERPESVIRIDAE;

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OC GAMMAHERPESVIRINAE; RHADINOVIRUS.
RN
RP SEQUENCE FROM N.A.
RX MEDLINE; 97094384.
RA MOORE P.S., BASHOFF C., WEISS R.A., CHANG Y.;
RT "Molecular mimicry of human cytokine and cytokine response pathway
genes by KSHV.";
RL SCIENCE 274:1739-1744(1996).
RN
RN SEQUENCE FROM N.A.
RX MEDLINE; 97121480.
RA RUSSO J.J., BOHENZKY R.A., CHEN M.C., CHEN J., YAN M., MADDALENA D.,
RA PARRY J.P., PERIZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
RT "Nucleotide sequence of the kaposi sarcoma-associated herpesvirus
(HHV8).";
RL PROC. NATL. ACAD. SCI. U.S.A. 93:14862-14867(1996).
RN
RN SEQUENCE FROM N.A.
RA RUSSO J.J., BOHENZKY R.A., CHEN M.C., CHEN J., YAN M., MADDALENA D.,
RA PARRY J.P., PERIZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
RL SUBMITTED (OCT-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RN
RN SEQUENCE FROM N.A.
RA NICHOLAS J., RUTOLO V.R., BURNS W.H., SANDFORD G., WAN X., CIUFO D.,
RA HENDRICKSON S., GIO H.G., HAYWARD G.S., REITZ M.S.;
RL SUBMITTED (NOV-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RN
RN SEQUENCE FROM N.A.
RA RUSSO J.J., BOHENZKY R.A., CHEN M.C., CHEN J., YAN M., MADDALENA D.,
RA PARRY J.P., PERIZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN
RN SEQUENCE FROM N.A.
RX MEDLINE; 97296220.
RA NEIPEL F., ALBRECHT J.C., FLECKENSTEIN B.;
RT "Cell-homologous genes in the Kaposi's sarcoma-associated rhadinovirus
human herpesvirus 8: determinants of its pathogenicity?";
RL J. VIROL. 71:4187-4192(1997).
RN
RN SEQUENCE FROM N.A.
RA SUN R., LIN S.-F., MILLER G.;
RL SUBMITTED (SEP-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; U75698; G1718265; -
DR EMBL; U74585; G1658273; -
DR EMBL; U93872; G2246546; -
DR EMBL; U71366; G3551763; -
KF PFAM: PF00048; 118; 1.
KO HYPOTHETICAL PROTEIN.
SQ SEQUENCE 95 AA; 10485 MW; 5283348D CRC32;
Query Match 77.2%; Score 71; DB 14; Length 95;
Best Local Similarity 66.7%; Pred. No. 7.62e-03;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;
Db 74 QICADPSKNVVR 85
:|||||:|:
1 EICADPSEEWVQ 12
RESULT 7
ID 000585 PRELIMINARY; PRT; 134 AA.
AC 000585;
DT 01-JUL-1997 (TREMBLREL, 04, CREATED)
DT 01-JUL-1997 (TREMBLREL, 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL, 08, LAST ANNOTATION UPDATE)
DE BETA CHEMOKINE EXODUS-2.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN
RN SEQUENCE FROM N.A.
RA HROMAS R.A., GRAY P., KLEMSZ M., FIFE K., BROXMEYER H.;
RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.

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KN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE; 97400322.
RA HEDRICK J.A., ZLOTNIK A.;
RT "Identification and characterization of a novel beta chemokine
  containing six conserved cysteines.";
RL J. IMMUNOL. 159:1589-1593(1997).
RN
RN [3]
RP SEQUENCE FROM N.A.
RA HEDRICK J.A., ZLOTNIK A.;
RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [4]
RP SEQUENCE FROM N.A.
RA MAGIRA M., IMAI T., HIRSHIMA K., KUSUDA J., RIDANPAA M., TAKAGI S.,
RA NISHIMURA M., KAKIZAKI M., NOMIYAMA H., YOSHIE O.;
RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; U88320; G2196920; -.
DR EMBL; AF001979; G2624925; -.
DR EMBL; AB002409; D1022673; -.
DR PFAM; PF00048; 118; 1.
SQ SEQUENCE 134 AA; 14646 MW; FE86A239 CRC32;

Query Match 77.2%; Score 71; DB 4; Length 134;
Best Local Similarity 75.0%; Pred. No. 7,62e-03;
Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 73 FCADPKKRWQ 84
:|||||
OY 1 EICADPSEWQ 12

RESULT 8
ID 035933 PRELIMINARY; PRT; 395 AA.
AC 035933;
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE FRACITALKINE.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCUROGNATHI; MURIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RA STRAIN-BALB/C; TISSUE-BRAIN;
RA ROSSI D., HARDIMAN G., COPELAND N., GILBERT D.J., JENKINS N.,
RA ZLOTNIK A., BAZAN J.F.;
RL SUBMITTED (MAR-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; U92565; G2459677; -.
DR PFAM; PF00048; 118; 1.
SQ SEQUENCE 395 AA; 42040 MW; 3997A113 CRC32;

Query Match 73.9%; Score 68; DB 11; Length 395;
Best Local Similarity 72.7%; Pred. No. 3,18e-02;
Matches 8; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 73 FCADPKKRWQ 83
:|||||
OY 2 ICADPSEWQ 12

RESULT 9
ID 035188 PRELIMINARY; PRT; 395 AA.
AC 035188;
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE NEUROACTIN.
GN SCYD1.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCUROGNATHI; MURIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.

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RX MEDLINE; 97320499.
RA PAN Y., CLARE L., HONG Z., DOLICH S., DEEDS J., GONZALO J., VATH J.,
RA GOSSELIN M., MA J., DUSSAULT B., WOLFF B., ALPERIN A., CULPEPPER J.,
RA GUTIERREZ-RAMOS J.C., GEARING D.;
RT "Neurotactin, a membrane-anchored chemokine upregulated in brain
  inflammation.";
RL NATURE 387:611-617(1997).
DR EMBL; AF010586; G2317698; -.
DR MGD; MGI:1097153; SCYD1.
DR PFAM; PF00048; 118; 1.
SQ SEQUENCE 395 AA; 42098 MW; E3CD0612 CRC32;

Query Match 73.9%; Score 68; DB 11; Length 395;
Best Local Similarity 72.7%; Pred. No. 3,18e-02;
Matches 8; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 73 FCADPKKRWQ 83
:|||||
OY 2 ICADPSEWQ 12

RESULT 10
ID 088430 PRELIMINARY; PRT; 92 AA.
AC 088430;
DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CC CHEMOKINE ABCD-1.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
OC RODENTIA; SCUROGNATHI; MURIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RA TISSUE-LIVER.
RX MEDLINE; 98353531.
RA SCHANEL C., PADALI E., SALTUSTO F., SPELETAS M., RUEDL C.,
RA SHIMIZU T., SEIDL T., ANDERSSON J., MELCHERS F., ROLINK A.G.,
RA SIDERAS P.;
RT "Activated murine B lymphocytes and dendritic cells produce a novel
  CC chemokine which acts selectively on activated T cells.";
RL J. EXP. MED. 188:451-463(1998).
DR EMBL; AF052505; G3378116; -.
SQ SEQUENCE 92 AA; 10302 MW; BC7219A0 CRC32;

Query Match 72.8%; Score 67; DB 11; Length 92;
Best Local Similarity 63.6%; Pred. No. 5,09e-02;
Matches 7; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 74 DICADPROVW 84
:|||||
OY 1 EICADPSEWQ 11

RESULT 11
ID 043927 PRELIMINARY; PRT; 109 AA.
AC 043927;
DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CXC CHEMOKINE PRECURSOR.
GN BGA-1.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RA LEGLER D.F., LOETSCHER M., STUBER ROOS R., CLARK-LEWIS I.,
RA BAGGIOLINI M., MOSER B.;
RT "B cell-attracting chemokine 1, a human CXC chemokine expressed in
  lymphoid tissues, selectively attracts B lymphocytes via BLR1/CXCR5.";
RL J. EXP. MED. 187:655-660(1998).
RN [2]

```

RP SEQUENCE FROM N.A.
RX MEDLINE: 98146056.
RA GUNN M.D., NGO V.N., ANSEL K.M., EXLAND E.H., CYSTER J.G.,
RA WILLIAMS L.T.;
RT "A B-cell-homing chemokine made in lymphoid follicles activates
Burkitt's lymphoma receptor-1.";
RL NATURE 391:799-803(1998).
RN [3]
RP SEQUENCE FROM N.A.
RA NAPOLITANO M., SPINETTI G., GAETANO C., CAPOGROSSI C.M.;
RL SUBMITTED (OCT-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AJ002211; E1249325; -
DR EMBL: AF044197; G2911376; -
DR EMBL: AF029894; G3169814; -
KM SIGNAL.
FT SIGNAL.
FT CHAIN 23 109 POTENTIAL.
SQ SEQUENCE 109 AA; 12664 MW; B5A46BC CRC32;

Query Match 71.7%; Score 66; DB 4; Length 109;
Best Local Similarity 54.5%; Pred. No. 8.11e-02;
Matches 6; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

Db 75 VCVDPOAEMIQ 85
QY 2 ICADPSEEWQ 12

RESULT 12
ID P78423 PRELIMINARY; PRT; 397 AA.
AC P78423: 000672;
DT 01-MAY-1997 (TREMBLER, 03, CREATED)
DT 01-MAY-1997 (TREMBLER, 03, LAST SEQUENCE UPDATE)
DE 01-NOV-1998 (TREMBLER, 08, LAST ANNOTATION UPDATE)
DE CX3C CHEMOKINE PRECURSOR.
GN A-1525.2.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 9717711.
RA BAZAN J.F., BACON K.B., HARDMAN G., WANG W., SOO K., ROSSI D.,
RA GREAVES D.R., ZLOTNIK A., SCHALL T.J.;
RT "A new class of membrane-bound chemokine with a CX3C motif.";
RL NATURE 385:640-644(1997).
RN [2]
RP SEQUENCE FROM N.A.
RA ADAMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRMANN J., MASON T.M.,
RA BRANDON R., KIM U.J., KERLAVAGE A.R., VENTER J.C.;
RT "Homo sapiens Chromosome 16 BAC clone C1987SK-A-1525.";
RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: U91835; G1899259; -
DR EMBL: U84487; G1888523; -
DR EMBL: AC004382; G3252821; -
DR PFAM: PF00048; 118; 1.
KM SIGNAL.
FT SIGNAL.
FT CHAIN 25 397 CX3C CHEMOKINE.
SQ SEQUENCE 397 AA; 42202 MW; C8093DD CRC32;

Query Match 70.7%; Score 65; DB 4; Length 397;
Best Local Similarity 70.0%; Pred. No. 1.29e-01;
Matches 7; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 73 FCADPKKOWV 82
QY 2 ICADPSEEWV 11

RESULT 13
ID 089093 PRELIMINARY; PRT; 97 AA.
AC 089093;

DT 01-NOV-1998 (TREMBLER, 08, CREATED)
DT 01-NOV-1998 (TREMBLER, 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLER, 08, LAST ANNOTATION UPDATE)
DE CC CHEMOKINE ST38 PRECURSOR.
GN LARC.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
OC RODENTIA; SCIROGNATHI; MORIDAE; MORINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RA UTANS-SCHNEITZ U., LOREZ H., KLINKERT W.E.F., DA SILVA J.,
RA LESSLAUER W.;
RT "A novel rat CC chemokine, identified by targeted differential
display, is upregulated in brain inflammation.";
RL J. NEUROIMMUNOL. 0:0-0(1998).
RN [2]
RP SEQUENCE FROM N.A.
RA VILLARES R.;
RL SUBMITTED (JUL-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AF053313; G3551819; -
DR EMBL: AJ007862; E1312757; -
KM SIGNAL.
FT SIGNAL.
FT CHAIN 28 27 POTENTIAL.
SQ SEQUENCE 97 AA; 10826 MW; 053405BD CRC32;

Query Match 69.6%; Score 64; DB 11; Length 97;
Best Local Similarity 60.0%; Pred. No. 2.04e-01;
Matches 6; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 74 VCADPKKOWV 83
QY 2 ICADPSEEWV 11

RESULT 14
ID 000626 PRELIMINARY; PRT; 93 AA.
AC 000626;
DT 01-JUL-1997 (TREMBLER, 04, CREATED)
DT 01-JUL-1997 (TREMBLER, 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLER, 08, LAST ANNOTATION UPDATE)
DE MACROPHAGE-DERIVED CHEMOKINE PRECURSOR.
GN MDC OR A-1525.1.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RA GODISKA R., CHANTRY D., RAPORT C.J., SOZZANI S., ALLAYENA P.,
RA MANTOVANI A., GRAY P.W.;
RL J. EXP. MED. 185:0-0(0).
RN [2]
RP SEQUENCE FROM N.A.
RA CHANG M.S., MCNINCH J., ELINS III C., MANTHEY C.L., GROSSHANS D.,
RA MENG T., BOONE T., ANDREW D.P.;
RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [3]
RP SEQUENCE FROM N.A.
RA ADAMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRMANN J., MASON T.M.,
RA BRANDON R., KIM U.J., KERLAVAGE A.R., VENTER J.C.;
RT "Homo sapiens Chromosome 16 BAC clone C1987SK-A-1525.";
RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: U83171; G1931581; -
DR EMBL: U83239; G2062425; -
DR EMBL: AC004382; G3252820; -
DR PFAM: PF00048; 118; 1.
KM SIGNAL.
FT SIGNAL.
FT CHAIN 25 93 POTENTIAL.
SQ SEQUENCE 93 AA; 10580 MW; 65EA63D2 CRC32;

Query Match 68.5%; Score 63; DB 4; Length 93;
Best Local Similarity 72.7%; Pred. No. 3.21e-01;

Matches 8; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Db 74 EICADPVPVW 84

OY 1 EICADPSEWV 11

RESULT 15 PRELIMINARY; PRT; 94 AA.

ID 098157; AC 098157;

DT 01-FEB-1997 (TREMBLREL. 02, CREATED)

DT 01-FEB-1997 (TREMBLREL. 02, LAST SEQUENCE UPDATE)

DE 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)

OS KAPOSI'S SARCOMA-ASSOCIATED HERPES-LIKE VIRUS,

AND KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS.

OC VIRUSES: DSDNA VIRUSES, NO RNA STAGE; HERPESVIRIDAE;

GAMMAHERPESVIRINAE; RHADINOVIRUS.

SEQUENCE FROM N.A.

NICHOLAS J., RUVOLO V.R., BURNS W.H., SANDFORD G., WAN X., CIUFO D.,

HENDRICKSON S., GUO H.G., HAYWARD G.S., REITZ M.S.;

SUBMITTED (SEP-1996) TO EMBL/GENBANK/DBJ DATA BANKS.

SEQUENCE FROM N.A.

MOORE P.S., BASHOFF C., WEISS R.A., CHANG Y.;

"Molecular mimicry of human cytokine and cytokine response pathway

genes by KSHV.";

SCIENCE 274:1739-1744(1996).

SEQUENCE FROM N.A.

RUSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,

PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;

"Nucleotide sequence of the Kaposi sarcoma-associated herpesvirus

(HHV8).";

PROC. NATL. ACAD. SCI. U.S.A. 93:14862-14867(1996).

SEQUENCE FROM N.A.

RUSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,

PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;

SUBMITTED (OCT-1996) TO EMBL/GENBANK/DBJ DATA BANKS.

SEQUENCE FROM N.A.

NEPEL F., ALBRECHT J.C., FLECKENSTEIN B.;

"Cell-homologous genes in the Kaposi's sarcoma-associated rhadinovirus

human herpesvirus 8: determinants of its pathogenicity?";

J. VIROL. 71:4187-4192(1997).

SEQUENCE FROM N.A.

SUN R., LIN S.-F., MILLER G.;

SUBMITTED (SEP-1996) TO EMBL/GENBANK/DBJ DATA BANKS.

EMBL: U67775; G1562496; -

EMBL: U75698; G1718264; -

EMBL: U93872; G2246517; -

EMBL: U71365; G3551760; -

PFAM: PF00048; 118; 1.

HYPOTHETICAL PROTEIN.

SEQUENCE 94 AA; 10486 MW; 91312200 CRC32;

Query Match 66.3%; Score 61; DB 14; Length 94;

Best Local Similarity 54.5%; Pred. No. 7.87e-01;

Matches 6; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 72 OVCADSKDWMV 82

:::|||||:::

OY 1 EICADPSEWV 11

RESULT 16 PRELIMINARY; PRT; 97 AA.

ID 057411; AC 057411;

DT 01-JUN-1998 (TREMBLREL. 06, CREATED)

DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)

DE 01-JUN-1998 (TREMBLREL. 06, LAST ANNOTATION UPDATE)

OS LYMPHOTACTIN PRECURSOR.

GALLUS GALLUS (CHICKEN).

OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ARCHOSAURIA; AVES;

NEOGNATHA; GALLIFORMES; PHASIANIDAE; PHASIANINAE; GALLUS.

SEQUENCE FROM N.A.

ROSSI D.L., BAZAN J.F., ZLOTNIK A.;

SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.

EMBL: AF006742; G2827882; -

SIGNAL.

FT SIGNAL. 1 24 POTENTIAL.

FT CHAIN 25 97 LYMPHOTACTIN.

SQ SEQUENCE 97 AA; 11131 MW; 3290101C CRC32;

Query Match 66.3%; Score 61; DB 13; Length 97;

Best Local Similarity 54.5%; Pred. No. 7.87e-01;

Matches 6; Conservative 1; Mismatches 4; Indels 0; Gaps 0;

Db 72 ICVPEQKMWQ 82

OY 2 ICADPSEWV 12

RESULT 17 PRELIMINARY; PRT; 203 AA.

ID 067634; AC 067634;

DT 01-NOV-1996 (TREMBLREL. 01, CREATED)

DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)

DE 01-NOV-1996 (TREMBLREL. 08, LAST ANNOTATION UPDATE)

OS GALDI Q PROTEIN (FRAGMENT).

VIRUSES: DSDNA VIRUSES, NO RNA STAGE; HERPESVIRIDAE;

ALPHAHERPESVIRINAE; VARICELLOVIRUS.

SEQUENCE FROM N.A.

RC STRAIN-GA;

RA PENG O., ZENG M., BHUIYAN Z.A., UBOKATA E., TANAKA A., NONOYAMA M.,

SHIRAZI Y.;

"Isolation and characterization of Marek's disease virus (MDV) CDNA5

mapping to the BamHI-12, BamHI-Q2, and BamHI-L fragments of the MDV

genome from lymphoblastoid cells transformed and persistently infected

with MDV.";

VIROLOGY 213:590-599(1995).

EMBL: U34966; G1185444; -

PFAM: PF00048; 118; 1.

NON-TER 1 1.

SEQUENCE 203 AA; 23132 MW; 887D04C3 CRC32;

Query Match 66.3%; Score 61; DB 14; Length 203;

Best Local Similarity 54.5%; Pred. No. 7.87e-01;

Matches 6; Conservative 1; Mismatches 4; Indels 0; Gaps 0;

Db 145 VCVDEAPVWQ 155

OY 2 ICADPSEWV 12

RESULT 18 PRELIMINARY; PRT; 96 AA.

ID P97884; AC P97884;

DT 01-MAY-1997 (TREMBLREL. 03, CREATED)

DT 01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)


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01-NOV-1998 (TREMELREL. 08, LAST ANNOTATION UPDATE)
CC CHEMOKINE EXODUS.
RATTUS NORVEGICUS (RAT).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCIUROMATHI; MORIDAE; MURINAE; RATTUS.
[1]
SEQUENCE FROM N.A.
STRAIN-SPRAGUE-DAWLEY;
KEINER G.S., MACIEJEWSKI-LENOIR D., LEE E.D., MAKI R.A.;
SUBMITTED (FEB-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN
RP
SEQUENCE FROM N.A.
TISSUE-BRAIN;
STRAIN-ROFFISHER 344;
LESLAUER W.;
UTAMS-SCHNEITZ U., LOREZ H., KLINERT W.E.F., DA SILVA J.,
RT
"A novel rat CC chemokine, identified by targeted differential
RT display, is upregulated in brain inflammation.";
RN
J. NEUROIMMUNOL. 0:0-0(1998).
DR
EMBL: U90447; G1899246; -.
DR
EMBL: AF053312; G3551817; -.
DR
PFAM: PF00048; 118; 1.
KW
SIGNAL.
SQ
SEQUENCE 96 AA; 10875 MW; 3FC09DD8 CRC32;

Query Match
Best Local Similarity 60.0%; Score 60; DB 11; Length 96;
Matches 6; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db
73 VCADPQITW 82
:||||:|
OY 2 ICADPSEWV 11

RESULT 19
ID 073912 PRELIMINARY; PRT; 104 AA.
AC 073912;
DT 01-AUG-1998 (TREMELREL. 07, CREATED)
DT 01-AUG-1998 (TREMELREL. 07, LAST SEQUENCE UPDATE)
DT 01-AUG-1998 (TREMELREL. 07, LAST ANNOTATION UPDATE)
DE K60 PROTEIN PRECURSOR.
GN K60.
OS GALLUS GALLUS (CHICKEN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ARCHOSAURIA; AVES;
OC NEOGNATHAE; GALLIFORMES; PHASIANIDAE; PHASIANINAE; GALLUS.
RN
[1]
SEQUENCE FROM N.A.
TISSUE-MACROPHAGE LIKE;
RA SICK C.;
RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR
EMBL: Y14971; E1295103; -.
KW
SIGNAL.
FT CHAIN 1 20 POTENTIAL.
FT CHAIN 21 104 K60 PROTEIN.
SQ SEQUENCE 104 AA; 11199 MW; 40C2EF8A CRC32;

Query Match
Best Local Similarity 65.2%; Score 60; DB 13; Length 104;
Matches 6; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

Db
75 EYCLDPTAPW 85
:|:|:|:|
OY 1 EICADPSEWV 11

RESULT 20
ID 001768 PRELIMINARY; PRT; 2180 AA.
AC 001768;
DT 01-JUL-1997 (TREMELREL. 04, CREATED)
DT 01-JUL-1997 (TREMELREL. 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMELREL. 08, LAST ANNOTATION UPDATE)
DE SIMILARITY TO EGF-LIKE DOMAINS.
GN T21E3.3.
OS CAENORHABDITIS ELEGANS.

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OC EUKARYOTA; METAZOA; NEMATODA; SECCERNENTEA; RHADITIA; RHADITIDA;
OC RHADITINA; RHADITOIDEA; RHADITIDAE; PELODERINAE; CAENORHABDITIS.
RN
[1]
SEQUENCE FROM N.A.
STRAIN-BRISTOL N2;
RX MEDLINE: 94150718.
RA WILSON R., AINSCOUGH R., ANDERSON K., BAYNES C., BERS M., BONFIELD J.,
RA BURTON J., CONNELL M., COOPER J., COULSON A., CRAXTON M.,
RA DEAR S., DU Z., DURBIN R., FAVELLO A., FULTON L., GARDNER A., GREEN P.,
RA HAWKINS T., HILLIER L., JIER M., JOHNSTON L., JONES M., KERSHAW J.,
RA KIRSTEN J., LAISTER N., LATREILLE P., LIGHTNING J., LLOYD C.,
RA MCMURRAY A., MORTIMORE B., O'CALLAGHAN M., PARSONS J., PERCY C.,
RA RIKKEN L., ROOPRA A., SAUNDERS D., SHOWKERN R., SMALDON N., SMITH A.,
RA SONNHAMMER E., STADEN R., SULSTON J., THIERRY-IBEG J., THOMAS K.,
RA VAUDIN M., VAUGHAN K., WATERSTON R., WATSON A., WEINSTOCK L.,
RA WILKINSON-SPROAT J., WOHLDMAN P.;
RT "2.2 Mb of contiguous nucleotide sequence from chromosome III of C.
RT elegans.";
RN
[2]
SEQUENCE FROM N.A.
STRAIN-BRISTOL N2;
RA DU Z., LE T.T.;
RN
[3]
SEQUENCE FROM N.A.
STRAIN-BRISTOL N2;
RA WATERSTON R.;
RN
SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RC
EMBL: AF003133; G2086863; -.
DR
PROSITE: PS01186; EGF_2; 7.
DR
PROSITE: PS01209; LDLR_1; 10.
DR
PFAM: PF00057; Idl_recept_a; 18.
DR
PFAM: PF00058; Idl_recept_b; 8.
KW
GLYCOPROTEIN.
SQ SEQUENCE 2180 AA; 241705 MW; 112867E3 CRC32;

Query Match
Best Local Similarity 65.2%; Score 60; DB 5; Length 2180;
Matches 6; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db
348 CYDGSDEWVE 357
|||||:|
OY 3 CADPSEWVQ 12

RESULT 21
ID 043646 PRELIMINARY; PRT; 91 AA.
AC 043646;
DT 01-JUN-1998 (TREMELREL. 06, CREATED)
DT 01-JUN-1998 (TREMELREL. 06, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMELREL. 08, LAST ANNOTATION UPDATE)
DE RANTES PRECURSOR.
GN SCY5.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN
[1]
SEQUENCE FROM N.A.
JANG J.S., KIM B.E.;
RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
RN
[2]
SEQUENCE FROM N.A.
NOMIYAMA H.;
RT "Structure of a region of 181 kb containing five CC chemokine genes.";
RL SUBMITTED (AUG-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR
EMBL: AF043341; G2905632; -.
DR
EMBL: AF088219; G3719366; -.
DR
PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW
SIGNAL.
FT CHAIN 1 23 POTENTIAL.
FT CHAIN 24 91 RANTES.
SQ SEQUENCE 91 AA; 9990 MW; CF404FAD CRC32;

```

Query Match 64.1%; Score 59; DB 4; Length 91;
 Best Local Similarity 41.7%; Pred. No. 1.90e+00;
 Matches 5; Conservative 4; Mismatches 3; Indels 0; Gaps 0;

71 QVCANPEKMWV 82
 :||:| ||:
 QY 1 EICADPSEWVQ 12

RESULT 22
 ID 062812 PRELIMINARY; PRT; 97 AA.
 AC 062812;
 DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
 DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
 DT 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
 DE INTERLEUKIN-8 (FRAGMENT).
 GN IL-8.
 OS EQUUS CABALLUS (HORSE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
 OC PERISSODACTYLIA; EQUIDAE; EQUUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-BRONCHIOALVEOLAR TISSUE;
 RA FRANCHINI M.;
 RL SUBMITTED (APR-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL; AF062377; G3126973; -.
 FT NON_TER 97
 SQ SEQUENCE 97 AA; 10742 MW; 00396FBF CRC32;

Query Match 64.1%; Score 59; DB 6; Length 97;
 Best Local Similarity 50.0%; Pred. No. 1.90e+00;
 Matches 6; Conservative 2; Mismatches 4; Indels 0; Gaps 0;

75 EVCANPHTKWVQ 86
 :|:| ||:
 QY 1 EICADPSEWVQ 12

RESULT 23
 ID P95531 PRELIMINARY; PRT; 448 AA.
 AC P95531;
 DT 01-MAY-1997 (TREMBLREL. 03, CREATED)
 DT 01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE LARGE SUBUNIT OF TERMINAL DIOXYGENASE.
 GN TDNAL.
 OS PSEUDOMONAS PUTIDA.
 OC BACTERIA; PROTEOBACTERIA; GAMMA SUBDIVISION; PSEUDOMONAS GROUP;
 OC PSEUDOMONAS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-UCC22;
 RX MEDLINE; 97144524.
 RA FUKUMORI F.; SAINT C.P.;
 RT "Nucleotide sequences and regulatory analysis of genes involved in
 conversion of aniline to catechol in Pseudomonas putida
 UCC22(PTN1).";
 RL J. BACTERIOL. 179:399-408(1997).
 DR EMBL; D85415; D1013489; -.
 DR PROSITE; PS00570; RING_HYDROXYL_ALPHA; 1.
 DR PFAM; PF00848; Ring_hydroxyl_A; 1.
 KW DIOXYGENASE.
 SQ SEQUENCE 448 AA; 50510 MW; 9F019DF8 CRC32;

Query Match 64.1%; Score 59; DB 2; Length 448;
 Best Local Similarity 45.5%; Pred. No. 1.90e+00;
 Matches 5; Conservative 3; Mismatches 3; Indels 0; Gaps 0;

385 LCNSPEDEWVD 395
 :|:| ||:
 QY 2 ICADPSEWVQ 12

RESULT 24
 ID 061093 PRELIMINARY; PRT; 570 AA.
 AC 061093;
 DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
 DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
 DT 01-JAN-1998 (TREMBLREL. 05, LAST ANNOTATION UPDATE)
 DE CYTOCHROME B-245, BETA POLYPEPTIDE
 DE (HEME BINDING MEMBRANE GLYCOPROTEIN GP91PHOX).
 GN CYBB.
 OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; ROSENTIA;
 OC SCURGNATHI; MORIDAE; MORINAE; MUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA BJORGVINDOTTIR H., ZHEN L., DINAUDER M.C.;
 RL BLOOD 87:0-0(0).
 DR EMBL; U43384; G1209752; -.
 DR MGI; MGI:88574; CYBB.
 KW HEMOGLOBIN; NUCLEAR PROTEIN.
 SQ SEQUENCE 570 AA; 65304 MW; 7CED3BAF CRC32;

Query Match 64.1%; Score 59; DB 11; Length 570;
 Best Local Similarity 70.0%; Pred. No. 1.90e+00;
 Matches 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

242 DICADKIEW 251
 :||| ||:
 QY 1 EICADPSEWV 10

RESULT 25
 ID Q99664 PRELIMINARY; PRT; 95 AA.
 AC Q99664;
 DT 01-MAY-1997 (TREMBLREL. 03, CREATED)
 DT 01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE CHEMOKINE EXODUS.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
 OC CATARRHINI; HOMINIDAE; HOMO.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-PANCREAS;
 RX MEDLINE; 97275143.
 RA HROMAS R., GRAY P.W., CHANTRY D., GODISKA R., KRAITHOHL M., FIFE K.,
 RA BELL G.I., TAKEDA J., ARONICA S., GORDON M., COOPER S., BROXMEYER H.E.,
 RA KLEMSZ M.J.;
 RT "Cloning and characterization of exodus, a novel beta-chemokine.";
 RL BLOOD 89:3315-3322(1997).
 DR EMBL; U64197; G178717; -.
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
 DR PFAM; PF00048; 118; 1.
 SQ SEQUENCE 95 AA; 10691 MW; 1526B4C0 CRC32;

Query Match 63.0%; Score 58; DB 4; Length 95;
 Best Local Similarity 50.0%; Pred. No. 2.93e+00;
 Matches 5; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

72 VCANPKOTWV 81
 :||:| ||:
 QY 2 ICADPSEWV 11

RESULT 26
 ID 046178 PRELIMINARY; PRT; 552 AA.
 AC 046178;
 DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
 DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE RADIAL SPOKEHEAD.
 OS STRONGYLOCENTROTUS PURPURATUS (PURPLE SEA URCHIN).
 OC EUKARYOTA; METAZOA; ECHINODERMATA; ECHINOZOA; ECHINOIDEA; EUECHINOIDEA;

```
OC ECHINACEA; ECHINOIDA; STRONGYLOCENTROTIDAE; STRONGYLOCENTROTUS.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE; 98119758.
RA GINGRAS D., GAGNON C.;
RT "Molecular cloning and characterization of a radial spoke head protein
  of sea urchin sperm axonemes: involvement of the protein in the
  regulation of sperm motility.";
RL MOL. BIOL. CELL 9:513-522(1998).
DR EMBL; U73123; G2905895; -.
SQ SEQUENCE 552 AA; 62723 MW; 898CFCCC CRC32;

Query Match
Best Local Similarity 40.0%; Score 58; DB 5; Length 552;
Matches 4; Conservative 4; Mismatches 2; Indels 0; Gaps 0;

Db 270 VCNERPQPMV 279
QY 2 ICADPSEEMV 11

RESULT 27
ID Q90825 PRELIMINARY; PRT; 96 AA.
AC Q90825;
DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CYTOKINE.
OS GALLUS GALLUS (CHICKEN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ARCHOSAURIA; AVES;
OC NEOGNATHAE; GALLIFORMES; PHASIANIDAE; PHASIANINAE; GALLUS.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-BONE MARROW;
RA PETRENKO O., ENRIETTO P.J.;
RL SUBMITTED (JUL-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; L34552; G509594; -.
DR PFAM; PF00048; 118; 1.
SQ SEQUENCE 96 AA; 1115 MW; FC581424 CRC32;

Query Match
Best Local Similarity 54.5%; Score 57; DB 13; Length 96;
Matches 6; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

Db 73 FCVDPAGMFG 83
QY 2 ICADPSEEMVQ 12

RESULT 28
ID Q69128 PRELIMINARY; PRT; 321 AA.
AC Q69128;
DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
DT 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
DE PUTATIVE EPIMERASE/DEHYDRATASE WBIG.
OS WBIG.
OS BURKHOLDERIA PSEUDOMALLEI.
OC BACTERIA; PROTEOBACTERIA; BETA SUBDIVISION; BURKHOLDERIA GROUP;
OC BURKHOLDERIA.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-1026B;
RA DESHAER D., BRETT P.J., WOODS D.E.;
RL SUBMITTED (MAY-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; AF064070; G3135686; -.
SQ SEQUENCE 321 AA; 34852 MW; F0196B82 CRC32;

Query Match
Best Local Similarity 62.0%; Score 57; DB 2; Length 321;
Matches 5; Conservative 3; Mismatches 3; Indels 0; Gaps 0;

Db 37 VCAEGVSEWVH 47
```

```
QY 2 ICADPSEEMVQ 12

RESULT 29
ID P91819 PRELIMINARY; PRT; 629 AA.
AC P91819;
DT 01-MAY-1997 (TREMBLREL. 03, CREATED)
DT 01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)
DT 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
DE RNA POLYMERASE II LARGE SUBUNIT (FRAGMENT).
OS ZELDISA PUNCTATA.
OC EUKARYOTA; METAZOA; NEMATODA; SECERNENTIA; RHABDITIA; RHABDITIDA;
OC CEPHALOBINA; CEPHALOBIDEA; CEPHALOBIDAE; ZELDISA.
RN [1]
RP SEQUENCE FROM N.A.
RA BALDWIN J.G., GIBLIN-DAVIS R.N., EDDLEMAN C.D., WILLIAMS D.S.,
RA VIDA J.T., THOMAS W.K.;
RL SUBMITTED (JUN-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; U61763; G1778038; -.
FT NON_TER 1
FT NON_TER 629
SQ SEQUENCE 629 AA; 71787 MW; 81055B4F CRC32;

Query Match
Best Local Similarity 41.7%; Score 57; DB 5; Length 629;
Matches 5; Conservative 3; Mismatches 4; Indels 0; Gaps 0;

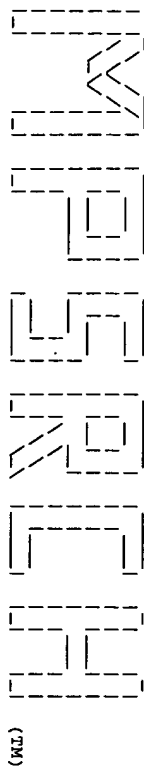
Db 385 NTCIEDQEMVQ 396
QY 1 EICADPSEEMVQ 12

RESULT 30
ID Q14324 PRELIMINARY; PRT; 1142 AA.
AC Q14324;
DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE FAST MYBP-C.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-SKELETAL MUSCLE CELL TYPE;
RX MEDLINE; 93387319.
RA WEBER F.E., VAUGHAN K.T., REINACH F.C., FISCHMAN D.A.;
RT "Complete sequence of human fast-type and slow-type muscle
  myosin-binding-protein C (MyBP-C). Differential expression, conserved
  RT domain structure and chromosome assignment.";
RL EUR. J. BIOCHEM. 216:661-669(1993).
DR EMBL; X73113; G402647; -.
DR PFAM; PF00041; fn3; 3.
DR PFAM; PF00047; 19; 2.
KM MYOSTIN.
SQ SEQUENCE 1142 AA; 128142 MW; F5020136 CRC32;

Query Match
Best Local Similarity 63.6%; Score 57; DB 4; Length 1142;
Matches 7; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Db 775 EXCLEGSEEMV 785
QY 1 EICADPSEEMV 11
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Search completed: Thu Apr 1 07:40:03 1999
Job time : 36 secs.



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Run on: Thu Apr 1 07:43:33 1999; Maspar time 2.82 Seconds
Tabular output not generated.

Title: >US-08-927-939-13
Description: (1-12) from US08927939.pep
Perfect Score: 97
Sequence: 1 EICADPKQKMWIQ 12

Scoring table:
PAM 150
Gap 15

Searched: 131922 seqs, 16180660 residues

Post-processing: Minimum Match 0%
Listing first 100 summaries

Database: a-geneseq32
1:part1 2:part2 3:part3 4:part4 5:part5 6:part6 7:part7
8:part8 9:part9 10:part10 11:part11 12:part12 13:part13
14:part14 15:part15 16:part16 17:part17 18:part18
19:part19 20:part20 21:part21 22:part22 23:part23
24:part24 25:part25 26:part26 27:part27 28:part28
29:part29

Statistics: Mean 18.472; Variance 64.336; scale 0.287

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description	Pred. No.
1	95	97.9	66 24	W13598	Monocyte chemoattract	8.74e-03
2	95	97.9	67 24	W13599	Monocyte chemoattract	8.74e-03
3	95	97.9	68 24	W13597	Monocyte chemoattract	8.74e-03
4	95	97.9	69 14	R87678	des(2-8) MCP-1.	8.74e-03
5	95	97.9	69 24	W13596	Monocyte chemoattract	8.74e-03
6	95	97.9	76 15	R87680	Monocyte chemoattract	8.74e-03
7	95	97.9	76 21	W11131	Mature human monocyte	8.74e-03
8	95	97.9	76 5	R28660	MCP.	8.74e-03
9	95	97.9	76 1	P90292	Peptide from human g1	8.74e-03
10	95	97.9	76 14	R87675	(28-Asp) MCP-1.	8.74e-03
11	95	97.9	76 20	W09374	Monocyte chemoattract	8.74e-03
12	95	97.9	76 10	R53398	Sense MCP-1.	8.74e-03
13	95	97.9	76 14	R87677	(3-Ala) MCP-1.	8.74e-03
14	95	97.9	76 14	R87676	(24-Air) MCP-1.	8.74e-03
15	95	97.9	77 15	R86859	Mature MCP-1.	8.74e-03
16	95	97.9	99 5	R28653	MCP.	8.74e-03
17	95	97.9	99 2	P95387	Human monocyte chemo-	8.74e-03
18	95	97.9	99 13	R70800	Chemoattractant prote	8.74e-03

19	95	97.9	99 14	R73914	Human monocyte chemo	8.74e-03
20	91	93.8	71 27	W22675	Dro13+ chemokine beta	2.31e-02
21	91	93.8	75 27	W22673	Bac 3 chemokine beta1	2.31e-02
22	91	93.8	77 27	W22672	Bac 2 chemokine beta1	2.31e-02
23	91	93.8	79 27	W22674	Dro11/2 chemokine bet	2.31e-02
24	91	93.8	82 27	W22671	Bac 1 chemokine beta1	2.31e-02
25	91	93.8	82 24	W17665	Stem cell mobilising	2.31e-02
26	91	93.8	98 17	R93087	Human chemokine beta-	2.31e-02
27	91	93.8	98 28	W30191	Monocyte chemoattract	2.31e-02
28	91	93.8	98 27	W22670	Human chemokine beta1	2.31e-02
29	91	93.8	99 2	R06398	Human MCP precursor.	2.31e-02
30	90	92.8	76 5	R26580	Sequence of bovine p6	2.94e-02
31	90	92.8	99 5	R26581	Sequence of p6 precu	2.94e-02
32	88	90.7	67 14	R73915	Human monocyte chemo	4.76e-02
33	88	90.7	99 13	R70801	Chemoattractant prote	4.76e-02
34	88	90.7	109 2	R24353	Cytokine encoded by c	4.76e-02
35	87	89.7	82 29	W44721	Amino acid sequence o	6.05e-02
36	87	89.7	97 21	W10099	Human eotaxin.	6.05e-02
37	87	89.7	97 23	W00667	Pancreas expressed ch	6.05e-02
38	87	89.7	97 24	W14990	Human eosinocyte CC t	6.05e-02
39	82	84.5	73 13	R70252	Eotaxin chemoattracta	1.99e-01
40	82	84.5	96 24	W14991	Guinea pig eosinocyte	1.99e-01
41	80	82.5	72 13	R70804	Chemoattractant MCP-2	3.20e-01
42	80	82.5	109 29	W42072	Human KC proprotein.	3.20e-01
43	80	82.5	109 26	W26655	Human beta-chemokine	3.20e-01
44	79	81.4	60 24	W17662	Stem cell mobilising	4.05e-01
45	79	81.4	89 14	R76127	Macrophage inflammato	4.05e-01
46	79	81.4	89 21	W07204	Human cytokine beta-1	4.05e-01
47	79	81.4	89 25	W23643	Human dendritic cell	4.05e-01
48	79	81.4	395 26	W23347	Novel murine CX3C 395	4.05e-01
49	79	81.4	395 28	W34308	Mouse neurotactin.	4.05e-01
50	77	79.4	89 13	R75419	Human SDF-1-alpha.	6.47e-01
51	77	79.4	89 12	R70994	Human SDF-1-alpha.	6.47e-01
52	77	79.4	93 13	R75420	Protein encoded by cd	6.47e-01
53	75	77.3	69 7	R39137	Human SDF-1-beta.	1.03e+00
54	75	77.3	70 24	W17661	LD78 Glu55Gln. Glu56	1.03e+00
55	75	77.3	73 13	R70251	Stem cell mobilising	1.03e+00
56	75	77.3	119 22	W07845	Eotaxin chemoattracta	1.03e+00
57	75	77.3	119 17	R85779	Human monocyte chemot	1.03e+00
58	74	76.3	69 21	W01802	Murine macrophage chemot	1.30e+00
59	74	76.3	69 1	P90504	CDNA from murine cell	1.30e+00
60	74	76.3	69 24	W16319	Inflammatory cytokine	1.30e+00
61	74	76.3	74 7	R38924	MIP-1alpha.	1.30e+00
62	74	76.3	79 24	W17664	Stem cell mobilising	1.30e+00
63	74	76.3	92 1	P93590	Deduced sequence of M	1.30e+00
64	74	76.3	92 21	W01804	Murine macrophage-der	1.30e+00
65	74	76.3	134 21	W00668	Pancreas expressed ch	1.30e+00
66	73	75.3	29 4	R20237	NAF(44-72) peptide in	1.64e+00
67	73	75.3	39 22	W04515	Interleukin-8(34-72)	1.64e+00
68	73	75.3	67 7	R38086	Modified human interl	1.64e+00
69	73	75.3	68 7	R38083	Modified human interl	1.64e+00
70	73	75.3	68 7	R38084	Modified human interl	1.64e+00
71	73	75.3	68 7	R38085	Modified human interl	1.64e+00
72	73	75.3	68 7	R38926	LD78 Glu48Gln.	1.64e+00
73	73	75.3	72 7	R38080	Human interleukin-8 m	1.64e+00
74	73	75.3	72 11	R70183	Soluble interleukin-8	1.64e+00
75	73	75.3	72 17	R88057	Human interleukin-8	1.64e+00
76	73	75.3	72 27	W41519	Neutrophil chemoatcti	1.64e+00
77	73	75.3	72 20	W41519	Neutrophil chemoatcti	1.64e+00
78	73	75.3	72 20	R99812	Chemokine-like protei	1.64e+00
79	73	75.3	72 20	R99804	Chemokine-like protei	1.64e+00
80	73	75.3	72 20	R99806	Chemokine-like protei	1.64e+00
81	73	75.3	72 20	R99803	Chemokine-like protei	1.64e+00
82	73	75.3	72 20	W04516	Interleukin(1-72) pro	1.64e+00
83	73	75.3	72 22	R99805	Chemokine-like protei	1.64e+00
84	73	75.3	72 23	W25714	Mutant human IL-8 Y1	1.64e+00
85	73	75.3	72 23	W25707	Mutant human IL-8 Y1	1.64e+00
86	73	75.3	72 23	W25709	Mutant human IL-8 Y4	1.64e+00
87	73	75.3	72 24	W26204	Neutrophil-specific c	1.64e+00
88	73	75.3	72 26	R81838	Sequence of a synthe	1.64e+00
89	73	75.3	72 23	W25708	Mutant human IL-8 S1	1.64e+00
90	73	75.3	72 23	W25713	Mutant human IL-8 F2	1.64e+00
91	73	75.3	72 1	P90913	Sequence of a synthe	1.64e+00
	73	75.3	72 1	R03166	Human neutrophil chem	1.64e+00

92	73	72	1	R03615	Human neutrophil chem	1.64e+00
93	73	73	20	R99815	Chemokine-like protel	1.64e+00
94	73	73	20	R99814	Interleukin-8.	1.64e+00
95	73	73	20	R99816	Chemokine-like protel	1.64e+00
96	73	73	20	R99818	Chemokine-like protel	1.64e+00
97	73	73	20	R99817	Chemokine-like protel	1.64e+00
98	73	73	20	R99818	Chemokine-like protel	1.64e+00
99	73	73	20	R99817	Chemokine-like protel	1.64e+00
100	73	73	20	R99817	Chemokine-like protel	1.64e+00

ALIGNMENTS

RESULT 1
ID W13598 standard; peptide; 66 AA.
WT W13598;
DE 07-NOV-1997 (first entry)
KW Monocyte chemoattractant protein analogue MCP-1 (10-76).
KW Truncated monocyte chemoattractant protein-1; inhibitor;
KW receptor binding; anti-inflammatory; basophil; lymphocyte; allergy;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
KW lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PA (LEWIS I).
PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Disclosure: Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (10-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-9 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 66 AA:

Query Match 97.9%; Score 95; DB 24; Length 66;
Best Local Similarity 91.7%; Pred. No. 8.74e-03;
Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 40 eicadpdkqkwg 51
Oy 1 EICADPKQKWIO 12

RESULT 2
ID W13599 standard; peptide; 67 AA.
WT W13599;
DE 07-NOV-1997 (first entry)
KW Monocyte chemoattractant protein analogue MCP-1 (11-76).
KW Truncated monocyte chemoattractant protein-1; inhibitor;
KW receptor binding; anti-inflammatory; basophil; lymphocyte; allergy;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
KW lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PA (LEWIS I).
PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Disclosure: Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (11-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-10 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 67 AA:

Query Match 97.9%; Score 95; DB 24; Length 67;
Best Local Similarity 91.7%; Pred. No. 8.74e-03;
Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 42 eicadpdkqkwg 53
Oy 1 EICADPKQKWIO 12

PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Disclosure: Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (11-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-10 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 67 AA:

Query Match 97.9%; Score 95; DB 24; Length 67;
Best Local Similarity 91.7%; Pred. No. 8.74e-03;
Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 41 eicadpdkqkwg 52
Oy 1 EICADPKQKWIO 12

RESULT 3
ID W13597 standard; peptide; 68 AA.
WT W13597;
DE 07-NOV-1997 (first entry)
KW Monocyte chemoattractant protein analogue MCP-1 (9-76).
KW Truncated monocyte chemoattractant protein-1; inhibitor;
KW receptor binding; anti-inflammatory; basophil; lymphocyte; allergy;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
KW lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PA (LEWIS I).
PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Claim 7; Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (9-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-8 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 68 AA:

Query Match 97.9%; Score 95; DB 24; Length 68;
Best Local Similarity 91.7%; Pred. No. 8.74e-03;
Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 42 eicadpdkqkwg 53
Oy 1 EICADPKQKWIO 12

RESULT 4
ID R87678 standard; protein; 69 AA.
AC R87678;
DE 21-FEB-1996 (first entry)
DE des(2-8) MCP-1.
KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
KM angioplasty.
OS Homo sapiens.
FH Key location/Qualifiers
FT modified_site 2.3
FT /note= "amino acids 2-8 of the native protein have
FT been deleted between these residues"
FT disulfide_bond 4...29
FT disulfide_bond 5...45
PN MO9513295-A1.
PD 18-MAY-1995.
PF 07-NOV-1994; U12874.
PR 12-NOV-1993; US-152301.
PA (DAND) DANA FARBER CANCER INST INC.
PI Rollins B, Zhang YJ;
DR WPI: 95-215051/28.
PT Human monocyte chemo-attractant protein-1 (MCP-1) deriva. - are
PT capable of inhibiting the monocyte chemo-attractant activity of
PS endogenous MCP-1 and can be used to treat restenosis
PS Claim 4; Page 11; 22pp; English.
CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
CC that they inhibit the monocyte chemoattractant activity of endogenous
CC MCP-1, provided that the derivative has not been modified by the
CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
CC are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg
CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
CC acids 2-8. The present sequence is a specifically claimed human MCP-1
CC derivative based on the parent protein disclosed in Rollins, Molecular
CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC The peptides can be used to prevent restenosis, e.g. in patients
CC undergoing coronary artery angioplasty.
SQ Sequence 69 AA;
Query Match 97.9%; Score 95; DB 14; Length 69;
Best Local Similarity 91.7%; Pred. No. 8.74e-03;
Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
Db 43 elcadvpkqkvwq 54
QY 1 EICADPKQKWIQ 12

RESULT 5
ID W13596 standard; peptide; 69 AA.
AC W13596;
DE 07-NOV-1997 (first entry)
DE Monocyte chemoattractant protein analogue MCP-1 (8-76).
KW Truncated monocyte chemoattractant protein-1; inhibitor;
KW receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
KW lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PA (LEWIS) LEWIS I.
PI Gong J, Lewis I;
DR WPI: 97-165844/16.
PT N-terminally truncated monocyte chemo-attractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Claim 5; Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (8-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-7 of MCP-1, acts as an antagonist of MCP-1

CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 69 AA;
Query Match 97.9%; Score 95; DB 24; Length 69;
Best Local Similarity 91.7%; Pred. No. 8.74e-03;
Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
Db 43 elcadvpkqkvwq 54
QY 1 EICADPKQKWIQ 12

RESULT 6
ID R87680 standard; protein; 76 AA.
AC R87680;
DE 05-MAR-1996 (first entry)
DE Monocyte chemotactic activating factor for use as wound remedy.
KW monocyte chemotactic activating factor; MCAF; wound remedy.
OS Homo sapiens.
PN MO9507710-A1.
PD 23-MAR-1995.
PF 13-SEP-1994; J01512.
PR 13-SEP-1993; JP-227385.
PA (TORA) TORAY IND INC.
PI Matsushima K, Naito M;
DR WPI: 95-131181/17.
PT Wound treatment using monocyte chemotactic factor - has potent
PT therapeutic effect on skin wounds and ulcers
PS Disclosure; Page 12; 22pp; Japanese.
CC The invention relates to a new remedy for curing wounds which, instead
CC of comprising a growth factor, comprises a monocyte chemotactic
CC activating factor (MCAF) or its variants or derivatives. The factor has
CC potent effect on skin wounds and ulcers. The present sequence is human
CC MCAF, the activity of which is exemplified as the new remedy.
SQ Sequence 76 AA;
Query Match 97.9%; Score 95; DB 15; Length 76;
Best Local Similarity 91.7%; Pred. No. 8.74e-03;
Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
Db 50 elcadvpkqkvwq 61
QY 1 EICADPKQKWIQ 12

RESULT 7
ID W11131 standard; protein; 76 AA.
AC W11131;
DE 10-JUN-1997 (first entry)
DE Mature human monocyte chemoattractant protein-1 (MCP-1).
KW MCP-1; mature chemoattractant protein-1; cytokine; interleukin-8;
KW IL-8; neutrophil activating peptide; labelling; imaging; targeting;
KW radionuclide; infection; inflammation; neoplasm; atheromatous lesion;
KW restenosis.
OS Homo sapiens.
FH Key location/Qualifiers
FT misc_difference 1
FT /note= "X- any amino acid"
FT US5605671-A.
PN 25-FEB-1997.
PD 05-OCT-1992; 956862.
PF 05-OCT-1992; US-956863.
PR 05-OCT-1992; US-956862.
PR 29-APR-1994; US-235659.

PA (MCM) MALLINCKRODT MEDICAL INC.
 PA (UNMI) UNIV MICHIGAN.
 PI Kunkel SL, Lyle LR, Strieter RM;
 DR WPI: 97-153541/14.
 PT Radio:labelling neutrophil-activating peptide(s) - for imaging
 PT targeted delivery of radioactive agent
 PS Example 10: Column 19-20, 15pp; English.
 CC Will31 represents mature human monocyte chemoattractant protein-1
 CC (MCP-1). MCP-1 was radiolabeled and used in a method for
 CC imaging a target site in vivo in an animal. Labeled MCP-1 was allowed
 CC to accumulate at a target site (having MCP-1 receptors) in the animal
 CC and detected so as to image the target site. Any Cys-Cys or Cys-Xaa-Cys
 CC chemokine carrying either iodine-123 or iodine-131 can be used in the
 CC method. Especially preferred is neutrophil activating peptide-2 (NAP-2)
 CC which recognizes interleukin-8 receptors and is labeled with
 CC technetium-99m, indium-111, copper-62, rhenium-186 or rhenium-188.
 CC The method can be used for imaging a site of infection, inflammation,
 CC neoplasm, atheromatous lesion or restenosis.
 SQ Sequence 76 AA;

Query Match 97.9%; Score 95; DB 21; Length 76;
 Best Local Similarity 91.7%; Pred. No. 8,74e-03;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 50 eicadpdkqkwg 61
 |||||||||:|
 QY 1 EICADPKQKWIQ 12

RESULT 8
 ID R28660 standard; Protein; 76 AA.
 AC R28660;
 DT 24-MAR-1993 (first entry)
 DE MCF.
 KM Plasmid; monocyte chemotactic factor; MCF; translation;
 KM termination; terminator; initiation; ribosome binding site;
 KM RBS; promoter; tryptophan; repressor.
 OS Synthetic.
 PN W09219737-A.
 PD 12-NOV-1992.
 PF 27-APR-1992; J00550.
 PR 09-MAY-1991; JP-135950.
 PA (DAIN) DAINIPPON PHARM CO LTD.
 PI Fukui T, Matsuo N, Yamada M, Yamagishi J;
 DR WPI: 92-398864/48.
 DR N-PSOB; Q30745-46.
 PT Prod. of polypeptide(s) having monocyte chemotactic activity -
 PT using expression plasmids with E. coli elements and specific
 PT E.coli strains
 PS Claim 1: Page 48 + Page 36; 56pp; English.
 CC An expression plasmid, pHM483, for producing MCF(76) consisting
 CC of 76 amino acids was constructed. The prod. can be used for e.g.
 CC treating bacterial infectious diseases..
 SQ Sequence 76 AA;

Query Match 97.9%; Score 95; DB 5; Length 76;
 Best Local Similarity 91.7%; Pred. No. 8,74e-03;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 50 eicadpdkqkwg 61
 |||||||||:|
 QY 1 EICADPKQKWIQ 12

RESULT 9
 ID P90292 standard; peptide; 76 AA.
 AC P90292;
 DT 17-JAN-1990 (first entry)
 DE Peptide from human glioma cell line U-105MG.
 KW Glioma; leucocyte; chemotaxis; neoplasms.
 OS Human.
 FH Key
 FT modified_site 1 Location/Qualifiers

FT /label- OTHER
 FT /note- "pyroglutamic acid"
 PN US7304234-A.
 PD 20-JUL-1989.
 PF 31-JAN-1989; 030423.
 PR 31-JAN-1989; US-304234.
 PA (USSH) US Dept. of Health and Human.
 PI Yoshimura T; Robinson E; Appella E; Leonard E.
 DR WPI: 89-263501/36.
 PT New peptide with specific chemotactic activity for monocytes - isolated
 PT from glioma or leucocyte cells, useful for treating infections and
 PT neoplasms.
 PS Disclosure, page 3; 46pp; English.
 CC Peptide is derived from glioma cell line U-105MG (ATCC CRL9392) or from
 CC leukocytes and has mol. wt. 8400. Used to treat infections and neoplasms.
 SQ Sequence 76 AA;

Query Match 97.9%; Score 95; DB 1; Length 76;
 Best Local Similarity 91.7%; Pred. No. 8,74e-03;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 50 eicadpdkqkwg 61
 |||||||||:|
 QY 1 EICADPKQKWIQ 12

RESULT 10
 ID R87675 standard; protein; 76 AA.
 AC R87675;
 DT 21-FEB-1996 (first entry)
 DE (28-ASP) MCP-1.
 KM monocyte chemoattractant protein; MCP-1; mutant; restenosis;
 KW angioplasty.
 OS Homo sapiens.
 FH Key
 FT modified_site 28 Location/Qualifiers
 FT /note- "Tyr in the native sequence is replaced by asp"
 FT disulfide_bond 11..36
 FT disulfide_bond 12..52
 PN W09513295-A1.
 PD 18-MAY-1995.
 PF 07-NOV-1994; U12874.
 PR 12-NOV-1993; US-152301.
 PA (DAND) DANA FARBER CANCER INST INC.
 PI Rollins B, Zhang YJ;
 DR WPI: 95-215051/28.
 PT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
 PT capable of inhibiting the monocyte chemo-attractant activity of
 PT endogenous MCP-1 and can be used to treat restenosis
 PS Claim 3: Page 11; 22pp; English.
 CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
 CC that they inhibit the monocyte chemoattractant activity of endogenous
 CC MCP-1, provided that the derivative has not been modified by the
 CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
 CC are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg
 CC by Phe; (3) substitution of 3-asp by Ala; and/or (4) deletion of amino
 CC acids 2-8. The present sequence is a specifically claimed human MCP-1
 CC derivative based on the parent protein disclosed in Rollins, Molecular
 CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
 CC The peptides can be used to prevent restenosis, e.g. in patients
 CC undergoing coronary artery angioplasty.
 SQ Sequence 76 AA;

Query Match 97.9%; Score 95; DB 14; Length 76;
 Best Local Similarity 91.7%; Pred. No. 8,74e-03;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 50 eicadpdkqkwg 61
 |||||||||:|
 QY 1 EICADPKQKWIQ 12

RESULT 11

ID W09374 standard; Protein: 76 AA.
AC W09374;
DT 21-MAR-1997 (first entry)
DE Monocyte chemotactic protein 1.
KW Human; monocyte chemoattractant protein; antisense; inhibition;
KW mononuclear cell; lymphocyte; macrophage; smooth muscle cell;
KW vascular restenosis.
OS Homo sapiens.
FH Key
FT misc_difference 1 Location/Qualifiers
FT misc_difference 51 /note= "encoded by codon CAG"
FT misc_difference 65 /note= "encoded by codon AUG"
FT misc_difference 65 /note= "encoded by codon CAC"
PN US5571713-A.
PD 05-NOV-1996.
PF 22-OCT-1992; 965678.
PR 22-OCT-1992; US-965678.
PR 27-MAY-1994; US-250958.
PA (UNMI) UNIV MICHIGAN.
PI Kunkel SL, Lyle LR, Strleter RM;
DR N-PSDB: T48092.
PT Anti-sense Monocyte Chemotactic Protein-1 oligo:nucleotide(s) -
PT useful for therapy or diagnosis of restenosis, etc.
PS Disclosure: Column 13-14; 16pp; English.
CC This is the amino acid sequence of the human monocyte chemoattractant
CC protein (MCP-1, a member of the C-C chemokine family. MCP-1 is a potent
CC stimulator of monocyte chemotaxis and is produced by injured vascular
CC smooth cells thus attracting monocytes and macrophages which infiltrate
CC the injured area and release growth factor. This causes proliferation of
CC the vascular smooth cells resulting in restenosis. The gene sequence can
CC be used to generate antisense sequences e.g. T48093-7, which can be used
CC to inhibit in vitro MCP-1 prodn. by mononuclear cells e.g. lymphocytes or
CC macrophages, or smooth muscle cells, esp. in order to prevent vascular
CC restenosis.
SQ Sequence 76 AA;

Query Match 97.9%; Score 95; DB 20; Length 76;
Best Local Similarity 91.7%; Pred. No. 8.74e-03;
Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 50 elcaddpkqkwg 61
|||||
QY 1 EICADPKQKWKQ 12

RESULT 12
ID R53398 standard; Protein: 76 AA.
AC R53398;
DT 15-DEC-1994 (first entry)
DE Sense MCP-1.
KW Antisense; RNA; DNA; monocyte chemotactic protein-1; MCP-1;
KW radionuclide; vascular restenosis; alpha; beta; emitting isotope;
KW diagnosis; monocytes; vascular injury.
OS Mammalian.
FH Key
FT misc_difference 1 Location/Qualifiers
FT misc_difference 1 /note= "unspecified amino acid"
PN W09409128-A.
PD 28-APR-1994.
PF 20-OCT-1993; U10074.
PR 22-OCT-1992; US-965678.
PA (MLCM) MALLINCKRODT MEDICAL INC.
PI Lyle LR;
DR WPI; 94-151314/18.
PT Anti-sense monocyte chemotactic protein-1 oligo:nucleotide(s) and
PT peptide(s) - is used for inhibiting, treating or imaging areas of
PT vascular restenosis or potential restenosis
PS Disclosure: Page 5; 42pp; English.
CC The sequences given in R53398-99 represent sense and antisense
CC monocyte chemotactic protein-1 (MCP-1) respectively. These

CC oligonucleotides may be labelled with a radionuclide and use
CC therapeutically for the treatment of vascular restenosis.
CC Radiolabelled antisense MCP-1 compounds may be constructed using high
CC energy alpha or beta emitting isotopes rather than the gamma
CC emitters cutamarly used for diagnostic purposes. Antisense MCP-1
CC compounds inactivate MCP-1 or inhibit production of MCP-1 so that
CC monocytes are not attracted to the area of vascular injury and
CC proliferation of vascular cells is inhibited.
SQ Sequence 76 AA;

Query Match 97.9%; Score 95; DB 10; Length 76;
Best Local Similarity 91.7%; Pred. No. 8.74e-03;
Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 50 elcaddpkqkwg 61
|||||
QY 1 EICADPKQKWKQ 12

RESULT 13
ID R87677 standard; protein; 76 AA.
AC R87677;
DT 21-FEB-1996 (first entry)
DE (3-ALA) MCP-1.
KW Monocyte chemoattractant protein; MCP-1; mutant; restenosis;
KW angioplasty.
OS Homo sapiens.
FH Key
FT modified_site 3 Location/Qualifiers
FT modified_site 3 /note= "Asp in the native sequence is replaced by Ala"
FT disulfide_bond 11..36
FT disulfide_bond 12..52
PN W09513295-A1.
PD 18-MAY-1995.
PF 07-NOV-1994; U12874.
PR 12-NOV-1993; US-152301.
PA (DAND) DANA FARBER CANCER INST INC.
PI Rollins B, Zhang YJ;
DR WPI; 95-215051/28.
PT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
PT capable of inhibiting the monocyte chemo-attractant activity of
PT endogenous MCP-1 and can be used to treat restenosis
PS Claim 6; Page 11; 22pp; English.
CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
CC that they inhibit the monocyte chemoattractant activity of endogenous
CC MCP-1, provided that the derivative has not been modified by the
CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
CC are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg
CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
CC acids 2-8. The present sequence is a specifically claimed human MCP-1
CC derivative based on the parent protein disclosed in Rollins, Molecular
CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC The peptides can be used to prevent restenosis, e.g. in patients
CC undergoing coronary artery angioplasty.
SQ Sequence 76 AA;

Query Match 97.9%; Score 95; DB 14; Length 76;
Best Local Similarity 91.7%; Pred. No. 8.74e-03;
Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 50 elcaddpkqkwg 61
|||||
QY 1 EICADPKQKWKQ 12

RESULT 14
ID R87676 standard; protein; 76 AA.
AC R87676;
DT 21-FEB-1996 (first entry)
DE (24-Arg) MCP-1.
KW Monocyte chemoattractant protein; MCP-1; mutant; restenosis;
KW angioplasty.
OS Homo sapiens.

FH Key Location/Qualifiers
 FT modified_site 24
 FT /note= "Arg in the native sequence is replaced by Phe"
 FT disulfide bond 11..36
 FT disulfide bond 12..52
 PN WO9513295-A1.
 PD 18-MAY-1995.
 PF 07-NOV-1994; U12874.
 PR 12-NOV-1993; US-152301.
 PA (DANA) DANA FARBER CANCER INST INC.
 PI Rollins B, Zhang YJ;
 DR WPI: 95-215051/28.
 PT Human monocyte chemo-attractant protein-1 (MCP-1) derive. - are
 PT capable of inhibiting the monocyte chemo-attractant activity of
 PT endogenous MCP-1 and can be used to treat restenosis
 PS Claim 5; Page 11; 22pp; English.
 CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
 CC that they inhibit the monocyte chemoattractant activity of endogenous
 CC MCP-1, provided that the derivative has not been modified by the
 CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
 CC are: (1) substitution of 28-Tyr by aspartate; (2) substitution of 24 Arg
 CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
 CC acids 2-8. The present sequence is a specifically claimed human MCP-1
 CC derivative based on the parent protein disclosed in Rollins, Molecular
 CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
 CC The peptides can be used to prevent restenosis, e.g. in patients
 CC undergoing coronary artery angioplasty.
 SQ Sequence 76 AA;
 Query Match 97.9%; Score 95; DB 14; Length 76;
 Best Local Similarity 91.7%; Pred. No. 8.74e-03;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
 Db 50 eicadpdkxkwg 61
 |||||||||:|
 1 EICADPKQKWIQ 12
 Oy
 RESULT 15
 ID R86859 standard; Protein; 77 AA.
 AC R86859;
 DT 20-MAR-1996 (first entry)
 DE Mature MCP-1.
 KM Antisense: monocyte chemotactic protein-1; MCP-1;
 KM "C-C" family; chemotactant cytokine; chemokine; stimulation;
 KM monocyte; chemotaxis; vascular smooth muscle cell; macrophage;
 KM proliferation; restenosis; balloon angioplasty.
 OS Homo sapiens.
 PN WO9519167-A1.
 PD 20-JUL-1995.
 PF 13-JAN-1995; U00605.
 PR 14-JAN-1994; US-182917.
 PA (MLCW) MALLINCKRODT MEDICAL INC.
 PI Lyle LR, Thomas-Miller B;
 DR WPI: 95-263703/34.
 DR N-PSDB: T03528.
 PT New antisense oligo:nucleotide(s) and peptide(s) for inhibiting
 PT restenosis - are directed against C-C family cytokine(s) such as
 PT monocyte chemotactic protein, opt. radio:labelled for therapy or
 PT imaging
 PS Disclosure; Page 5; 50pp; English.
 CC This sequence represents the mature form of monocyte chemotactic
 CC protein-1 (MCP-1). MCP-1 is a member of the "C-C" family of
 CC chemotactant cytokines or chemokines. It is a potent stimulator
 CC of monocyte chemotaxis and has an extremely high degree of specificity
 CC for this cell type. MCP-1 is produced by injured vascular smooth muscle
 CC cells and attracts the monocytes and macrophages which infiltrate the
 CC area, releasing growth factors and resulting in proliferation of vascular
 CC smooth muscle and restenosis. Nucleic acid molecules which are antisense
 CC to the MCP-1 mRNA may be used to inhibit translation of MCP-1 and so may
 CC be useful for inhibiting vascular restenosis, partic. following balloon
 CC angioplasty or a related process. The molecule may be radiolabelled to
 CC increase its therapeutic effect or for imaging areas of potential

CC restenosis.
 SQ Sequence 77 AA;
 Query Match 97.9%; Score 95; DB 15; Length 77;
 Best Local Similarity 91.7%; Pred. No. 8.74e-03;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
 Db 51 eicadpdkxkwg 62
 |||||||||:|
 1 EICADPKQKWIQ 12
 Oy
 RESULT 16
 ID R28663 standard; Protein; 99 AA.
 AC R28663;
 DT 24-MAR-1993 (first entry)
 DE MCF.
 KM Plasmid; monocyte chemotactic factor; MCF; translation;
 KM termination; terminator; initiation; ribosome binding site;
 KM RBS; promoter; cryptophan; repressor.
 OS Synthetic.
 FH Key Location/Qualifiers
 FT peptide 1..23
 FT /label= sig_peptide
 FT protein 24..99
 FT /label= mat_protein
 PN WO9219737-A.
 PD 12-NOV-1992.
 PR 27-APR-1992; J00550.
 PF 09-MAY-1991; JP-135950.
 PA (DAIN) DAINIPPON PHARM CO LTD.
 PI Fukui I, Matsuo N, Yamada M, Yamagishi J;
 DR WPI: 92-398864/48.
 DR N-PSDB: Q30748.
 PT Prodn. of polypeptide(s) having monocyte chemotactic activity -
 PT using expression plasmids with E. coli elements and specific
 PT E. coli strains
 PS Disclosure; Page 43-44; 56pp; English.
 CC An expression plasmid, pMHC076 for producing MCF(76) consisting
 CC of 76 amino acids was constructed. DNA encoding MCF(76) was
 CC prep. using a recombinant plasmid pMCF7.
 SQ Sequence 99 AA;
 Query Match 97.9%; Score 95; DB 5; Length 99;
 Best Local Similarity 91.7%; Pred. No. 8.74e-03;
 Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
 Db 73 eicadpdkxkwg 84
 |||||||||:|
 1 EICADPKQKWIQ 12
 Oy
 RESULT 17
 ID P95387 standard; protein; 99 AA.
 AC P95387;
 DT 25-JUL-1989 (first entry)
 DE Human monocyte chemo-attractant peptide-1.
 KM Human monocyte chemo-attractant peptide; inflammatory disease; neoplasms.
 OS Homo sapiens.
 FH Key Location/Qualifiers
 FT protein 24..99
 FT /product=MCP-1
 PN U57330446-A.
 PD 25-JUL-1989;
 PF 30-MAR-1989; 330446.
 PR 30-MAR-1989; US-330446.
 PA (USSH) US Dept. Health and Human.
 PI Yoshimura T, Rodinson EA, Appella E, Leonard EJ;
 DR WPI: 89-300683/41.
 DR N-PSDB: N91337.
 PT Human derived monocyte chemo-attractant peptide prods. - obtd. from human
 PT glioma cell line U-105MG or peripheral blood mononuclear leukocytes.
 PS Disclosure; fig 2; 66pp; English.

CC This is a human-derived monocyte chemo-attractant peptide (MCP-1) sequence
CC MCP-1 exhibits optimal chemotactic activity at a concn. of 1nM and has a
CC mol. mass of c.a. 8,400 D. MCP-1 can be used for treating infection eg
CC inflammatory disease, or for the control of neoplasms by accumulation of
CC monocytes at the site of the infection. The corresp. DNA is obtd. by
CC chemical synthesis, by screening reverse transcripts of mRNA from
CC purified blood leukocytes or cell cultures of eg U-373 MG or KMG-5.
SQ Sequence 99 AA:

Query Match 97.9%; Score 95; DB 2; Length 99;
Best Local Similarity 91.7%; Pred. No. 8.74e-03;
Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
Db 73 eicadpdkgwq 84
QY 1 EICADPKKRWIQ 12

RESULT 18
ID R70800 standard; Protein; 99 AA.
AC R70800;
DE 29-AUG-1995 (first entry)
DE Chemoattractant protein MCP-1.
KW MCP-1; chemoattractant; heparanase; heparin; heparan sulfate;
KW arthritis; stenosis; cancer; wound healing.
OS Homo sapiens.
PN W09504158-A.
PD 09-FEB-1995.
PE 26-JUL-1994; U08207.
PR 29-JUL-1993; US-099866.
PR 13-OCT-1993; US-136117.
PA (DPOJ) DPOJHN CO.
PI Hoogwerf AJ, Ledbetter SR.
DR N-PSDB: 085370.
DR N-PSDB: 085370/11.
PT Screening for cdds. with anti-heparanase activity - by detecting
PT inhibition of heparin or heparan sulphate degradation.
PT potentially useful for treating arthritis, stenosis, cancer.
PS Claim 13; Page 49; 60pp; English.
CC Purified heparanases, prepared under reducing conditions and
CC activated with transglutaminase, are given in R70786-804. Most
CC are prepared by reverse transcription of mRNA from activated human
CC leukocytes, then cloning of the cDNA into pVL1392 baculovirus
CC vector, and expression in Sf9 cells in the presence of reduced
CC glutathione and dithiothreitol.
SQ Sequence 99 AA:

Query Match 97.9%; Score 95; DB 13; Length 99;
Best Local Similarity 91.7%; Pred. No. 8.74e-03;
Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
Db 73 eicadpdkgwq 84
QY 1 EICADPKKRWIQ 12

RESULT 19
ID R73914 standard; protein; 99 AA.
AC R73914;
DE 05-DEC-1995 (first entry)
DE Human monocyte chemoattractant factor hMCP-1.
AW Human monocyte chemoattractant factor; hMCP-1; chemokine; vaccine;
KW meningitis related homologous antigenic sequence; MRHAS; RV-1;
KW immunosay; diagnosis; treatment; prophylactic; bacterial;
KW viral.
OS Homo sapiens.
PN W09509233-A.
PD 06-APR-1995.
PE 28-SEP-1994; CA0516.
PR 28-SEP-1993; US-127499.
PA (SHAR/) SHARMA L R.
PA (VALS/) VAN ALSTYNE D.
PI Sharma LR, Van Alstyne D;

DR WPI: 95-147431/19.
PT New peptide(s) and corresp. antibodies for the treatment of
PT meningitis - the peptide(s) corresp. to homologous antigenic
PT sites on bacterial and viral agents and on chemokine(s), used for
PT detecting and preventing meningitis
PS Claim 47; Fig 8/10; 98pp; English.
CC R73914 is the chemokine Human monocyte chemoattractant factor hMCP-1.
CC It contains the meningitis related antigenic sequences (MRHAS) claimed
CC in R73895 and R73907, which are recognised by a monoclonal antibody
CC from the hybridoma Rubella virus (RV)-1. The claimed MRHAS peptides
CC may be used in immunoassays to diagnose the presence of bacterial
CC and/or viral meningitis agents in a sample, or in prophylactic and
CC therapeutic meningitis treatments. The peptides may also be used as
CC vaccines against meningitis.
CC NB: Identified by matching corresponding MRHAS peptides.
SQ Sequence 99 AA:

Query Match 97.9%; Score 95; DB 14; Length 99;
Best Local Similarity 91.7%; Pred. No. 8.74e-03;
Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
Db 73 eicadpdkgwq 84
QY 1 EICADPKKRWIQ 12

RESULT 20
ID W22675 standard; Protein; 71 AA.
AC W22675;
DE 19-MAR-1998 (first entry)
DE DROI3+ chemokine beta10 or monocyte chemotactic protein 4 variant.
KW Human; chemokine beta10; CK beta10; treatment; antagonist;
KW solid tumour; infection; autoimmune disease; asthma; antibody;
KW fibrotic disease; psoriasis; neurodegenerative disease;
KW wound healing; haematopoiesis regulation; gene therapy;
KW chromosome identification; monocyte chemotactic protein 4;
KW leukaemia; MCP-4; DROI3+ variant.
OS Homo sapiens.
PN W09731098-A1.
PD 28-AUG-1997.
PE 23-FEB-1996; U02598.
PR 23-FEB-1996; WO-U02598.
PA (HUMA-) HUMAN GENOME SCI INC.
PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
PI Parmelee D, White J;
DR WPI: 97-435153/40.
PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
PT protein 4 - useful to treat tumours, autoimmune disease, infection,
PT asthma and fibrosis
PS Example 11; Fig 5; 83pp; English.
CC The present sequence is human chemokine beta10 (CK beta10) or
CC monocyte chemotactic protein 4 (MCP-4) DROI3+ variant, which can
CC be used to treat patients deficient in CK beta10, while a CK beta10
CC antagonist can be used to reduce excessive levels of CK beta10. CK
CC beta10 can be used to treat leukaemia, solid tumours, chronic or
CC opportunistic infections, autoimmune diseases, asthma, fibrotic
CC diseases, psoriasis and neurodegenerative diseases. It also
CC promotes wound healing, regulates haematopoiesis and generates
CC antibodies. Labeled CK beta10 can be used to identify its cognate
CC receptor, while cells expressing the receptor can be used to screen
CC compounds for (ant)agonist activity. The antagonist can be used to
CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
CC infectious diseases, allergies, prostaglandin dependent fever and
CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
CC syndrome, lung inflammation and atherosclerosis. CK beta10 cDNA can
CC be used to isolate genes encoding similar peptides, in gene therapy
CC and for chromosome identification.
SQ Sequence 71 AA:

Query Match 93.8%; Score 91; DB 27; Length 71;
Best Local Similarity 83.3%; Pred. No. 2.31e-02;
Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 45 eicadpkexkwyg 56
 |||||||:|:|
 QY 1 EICADPKQKWIQ 12

RESULT 21

ID W22673 standard: Protein: 75 AA.

AC W22673: 19-MAR-1998 (first entry)
 DE Bac 3 chemokine beta10 or monocyte chemotactic protein 4 variant.
 KW Human: chemokine beta10; CK beta10; treatment; antagonist;
 KW solid tumour; infection; autoimmune disease; asthma; antibody;
 KW fibrotic disease; psoriasis; neurodegenerative disease;
 KW wound healing; haematopoiesis regulation; gene therapy;
 KW chromosome identification; monocyte chemotactic protein 4;
 KW leukaemia; MCP-4; Bac 3 variant.
 OS Homo sapiens.
 PN MO9731098-A1.
 PD 28-AUG-1997.
 PF 23-FEB-1996: WO-002598.
 PR 23-FEB-1996: WO-002598.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
 PI Parmelee D, White J;
 DR WPI: 97-435153/40.
 PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 PT protein 4 - useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis
 PS Example 11: Fig 5: 83pp: English.
 CC The present sequence is human chemokine beta10 (CK beta10) or
 CC monocyte chemotactic protein 4 (MCP-4) Bac 3 variant, which can be
 CC used to treat patients deficient in CK beta10, while a CK beta10
 CC antagonist can be used to reduce excessive levels of CK beta10. CK
 CC beta10 can be used to treat leukaemia, solid tumours, chronic or
 CC opportunistic infections, autoimmune diseases, asthma, fibrotic
 CC diseases, psoriasis and neurodegenerative diseases. It also
 CC promotes wound healing, regulates haematopoiesis and generates
 CC antibodies. Labelled CK beta10 can be used to identify its cognate
 CC receptor, while cells expressing the receptor can be used to screen
 CC compounds for (ant)agonist activity. The antagonist can be used to
 CC treat rheumatoid arthritis, allergies, autoimmune, chronic inflammatory or
 CC infectious diseases, psoriasis, prostaglandin dependent fever and
 CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
 CC syndrome, lung inflammation and atherosclerosis. CK beta10 cDNA can
 CC be used to isolate genes encoding similar peptides, in gene therapy
 CC and for chromosome identification.
 SQ Sequence 75 AA;

Query Match 93.8%; Score 91; DB 27; Length 75;
 Best Local Similarity 83.3%; Pred. No. 2,31e-02;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 49 eicadpkexkwyg 60
 |||||||:|:|
 QY 1 EICADPKQKWIQ 12

RESULT 22

ID W22672 standard: Protein: 77 AA.

AC W22672: 19-MAR-1998 (first entry)
 DE Bac 2 chemokine beta10 or monocyte chemotactic protein 4 variant.
 KW Human: chemokine beta10; CK beta10; treatment; antagonist;
 KW solid tumour; infection; autoimmune disease; asthma; antibody;
 KW fibrotic disease; psoriasis; neurodegenerative disease;
 KW wound healing; haematopoiesis regulation; gene therapy;
 KW chromosome identification; monocyte chemotactic protein 4;
 KW leukaemia; MCP-4; Bac 2 variant.
 OS Homo sapiens.
 PN MO9731098-A1.
 PD 28-AUG-1997.
 PF 23-FEB-1996: WO-002598.
 PR 23-FEB-1996: WO-002598.

PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
 PI Parmelee D, White J;
 DR WPI: 97-435153/40.

PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 PT protein 4 - useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis
 PS Example 11: Fig 5: 83pp: English.
 CC The present sequence is human chemokine beta10 (CK beta10) or
 CC monocyte chemotactic protein 4 (MCP-4) Bac 2 variant, which can be
 CC used to treat patients deficient in CK beta10, while a CK beta10
 CC antagonist can be used to reduce excessive levels of CK beta10. CK
 CC beta10 can be used to treat leukaemia, solid tumours, chronic or
 CC opportunistic infections, autoimmune diseases, asthma, fibrotic
 CC diseases, psoriasis and neurodegenerative diseases. It also
 CC promotes wound healing, regulates haematopoiesis and generates
 CC antibodies. Labelled CK beta10 can be used to identify its cognate
 CC receptor, while cells expressing the receptor can be used to screen
 CC compounds for (ant)agonist activity. The antagonist can be used to
 CC treat rheumatoid arthritis, allergies, autoimmune, chronic inflammatory or
 CC infectious diseases, psoriasis, prostaglandin dependent fever and
 CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
 CC syndrome, lung inflammation and atherosclerosis. CK beta10 cDNA can
 CC be used to isolate genes encoding similar peptides, in gene therapy
 CC and for chromosome identification.
 SQ Sequence 77 AA;

Query Match 93.8%; Score 91; DB 27; Length 77;
 Best Local Similarity 83.3%; Pred. No. 2,31e-02;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 51 eicadpkexkwyg 62
 |||||||:|:|
 QY 1 EICADPKQKWIQ 12

RESULT 23

ID W22674 standard: Protein: 79 AA.

AC W22674: 19-MAR-1998 (first entry)
 DE Droll/2 chemokine beta10 or monocyte chemotactic protein 4 variant.
 KW Human: chemokine beta10; CK beta10; treatment; antagonist;
 KW solid tumour; infection; autoimmune disease; asthma; antibody;
 KW fibrotic disease; psoriasis; neurodegenerative disease;
 KW wound healing; haematopoiesis regulation; gene therapy;
 KW chromosome identification; monocyte chemotactic protein 4;
 KW leukaemia; MCP-4; Droll/2 variant.
 OS Homo sapiens.
 PN MO9731098-A1.
 PD 28-AUG-1997.
 PF 23-FEB-1996: WO-002598.
 PR 23-FEB-1996: WO-002598.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
 PI Parmelee D, White J;
 DR WPI: 97-435153/40.
 PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 PT protein 4 - useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis
 PS Example 11: Fig 5: 83pp: English.
 CC The present sequence is human chemokine beta10 (CK beta10) or
 CC monocyte chemotactic protein 4 (MCP-4) Droll/2 variant, which can
 CC be used to treat patients deficient in CK beta10, while a CK beta10
 CC antagonist can be used to reduce excessive levels of CK beta10. CK
 CC beta10 can be used to treat leukaemia, solid tumours, chronic or
 CC opportunistic infections, autoimmune diseases, asthma, fibrotic
 CC diseases, psoriasis and neurodegenerative diseases. It also
 CC promotes wound healing, regulates haematopoiesis and generates
 CC antibodies. Labelled CK beta10 can be used to identify its cognate
 CC receptor, while cells expressing the receptor can be used to screen
 CC compounds for (ant)agonist activity. The antagonist can be used to
 CC treat rheumatoid arthritis, allergies, autoimmune, chronic inflammatory or
 CC infectious diseases, psoriasis, prostaglandin dependent fever and

CC bone marrow failure, sllcosis, sarcoidosis, hyper-eosinophilic
CC syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can
CC be used to isolate genes encoding similar peptides, in gene therapy
CC and for chromosome identification.
SQ Sequence 79 AA;

Query Match 93.8%; Score 91; DB 27; Length 79;
Best Local Similarity 83.3%; Pred. No. 2,31e-02;

Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 53 eicadpkekxwq 64
|||||:|:|:|

Qy 1 EICADPKOKWIO 12

RESULT 24

ID W22671 standard; Protein; 82 AA.

AC W22671;

DI 19-MAR-1998 (first entry)

DE Bac 1 chemokine beta10 or monocyte chemotactic protein 4 variant.

KM Human chemokine beta10; Ck beta10; treatment; antagonist;

KM solid tumour; infection; autoimmune disease; asthma; antibody;

KM fibrotic disease; psoriasis; neurodegenerative disease;

KM wound healing; haematopoiesis regulation; gene therapy;

KM chromosome identification; monocyte chemotactic protein 4;

KV leukemia; MCP-4; Bac 1 variant.

OS Homo sapiens.

PN W09731098-A1.

PD 28-AUG-1997.

PF 23-FEB-1996; U02598.

PR 23-FEB-1996; WO-002598.

PA (HUMA-) HUMAN GENOME SCI INC.

PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,

PI Parmelee D, White J;

DR WPI: 97-435153/40.

PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic

PT protein 4 - useful to treat tumours, autoimmune disease, infection,

PT asthma and fibrosis.

PS Example 11; Fig 5; 83pp; English.

CC The present sequence is human chemokine beta10 (Ck beta10) or

CC monocyte chemotactic protein 4 (MCP-4) Bac 1 variant, which can be

CC used to treat patients deficient in Ck beta10, while a Ck beta10

CC antagonist can be used to reduce excessive levels of Ck beta10. Ck

CC beta10 can be used to treat leukemia, solid tumours, chronic or

CC opportunistic infections, autoimmune diseases, asthma, fibrotic

CC diseases, psoriasis and neurodegenerative diseases. It also

CC promotes wound healing, regulates haematopoiesis and generates

CC antibodies. Labeled Ck beta10 can be used to identify its cognate

CC receptor. While cells expressing the receptor can be used to screen

CC compounds for (antagonist activity. The antagonist can be used to

CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or

CC infectious diseases, allergies, prostaglandin dependent fever and

CC bone marrow failure, sllcosis, sarcoidosis, hyper-eosinophilic

CC syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can

CC be used to isolate genes encoding similar peptides, in gene therapy

CC and for chromosome identification.
SQ Sequence 82 AA;

Query Match 93.8%; Score 91; DB 27; Length 82;
Best Local Similarity 83.3%; Pred. No. 2,31e-02;

Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 56 eicadpkekxwq 67
|||||:|:|:|

Qy 1 EICADPKOKWIO 12

RESULT 25

ID W17665 standard; peptide; 82 AA.

AC W17665;

DI 16-DEC-1997 (first entry)

DE Stem cell mobilising chemokine Ckbeta-10.

KM Hematopoietic cell; parasitic infection; colony stimulating factor;

KM haemoregulator; immune response; bacterial infection; transplant;
KM wound healing; bone marrow; immunosuppression; regeneration;
KM neoplastic disease; viral disease; gene therapy; cytotoxic drug.
OS Synthetic.

PN W09715594-A1.

PD 01-MAY-1997.

PF 23-OCT-1996; U16959.

PR 24-OCT-1995; US-006051.

PA (SMIK) SMITHKLINE BEECHAM CORP.

PI Kreider BL, Li H, Pelus L, White JR;

DR WPI: 97-258956/23.

PT Ten new chemokine(s) able to mobilise stem cells - used where

PT increased levels of haematopoietic cells are required, e.g. to

PT increase resistance to infection

PS Claim 7; Page 11-12; 24pp; English.

CC The present sequence represents a chemokine, Ckbeta-10, which is capable

CC of mobilising stem cells. The chemokine can be used therapeutically to

CC improve stem cell mobilisation, optionally together with a colony

CC stimulating factor or other haematoregulatory agent. It can be used

CC wherever an increased level of haematopoietic cells is needed, e.g. to

CC increase the immune response to chronic infection (particularly

CC bacterial or parasitic), to promote wound healing, in (transplant)

CC patients with reduced bone marrow function as a result of

CC immunosuppressive treatment or disease, and to provide more rapid

CC regeneration of bone marrow after treatment for neoplastic or viral

CC diseases. The induced stem cells may be harvested for subsequent return

CC to the patient, optionally after they have been genetically manipulated

CC to deliver a selected gene product (gene therapy). The cells may be

CC co-administered with a cytotoxic drug.
SQ Sequence 82 AA;

Query Match 93.8%; Score 91; DB 24; Length 82;
Best Local Similarity 83.3%; Pred. No. 2,31e-02;

Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 56 eicadpkekxwq 67
|||||:|:|:|

Qy 1 EICADPKOKWIO 12

RESULT 26

ID R93087 standard; Protein; 98 AA.

AC R93087; 27-AUG-1996 (first entry)

DE Human chemokine beta-10.

KM Chemokine beta-10; chemokine beta-4; Ck beta-10; Ck beta-4;

KM cytokine; leukemia; tumour; cancer; autoimmune disease; psoriasis;

KM asthma; allergy; wound healing; diagnosis; therapy.

OS Homo sapiens.

FH Key Location/Qualifiers

FT Peptide 1..23

FT /label- Sig_peptide 25..98

FT protein /label- Mat_protein

PN W09605856-A1.

PD 29-FEB-1996.

PF 23-AUG-1994; U09484.

PR 23-AUG-1994; WO-U09484.

PR 08-SEP-1994; ZA-006936.

PA (HUMA-) HUMAN GENOME SCI INC.

PI Adams MD, Li H;

DR WPI: 96-151145/15.

DR N-PSDB; T17050.

PT New chemokine Ck(beta)-4 and -10 genes and polypeptide(s) - useful

PT to treat, e.g. leukemia, solid tumours and auto-immune diseases

PS Claim 19; Fig 2; 53pp; English.

CC A novel human chemokine, Ck beta-10 (R93087), was identified as

CC the product of a cDNA clone (T17050) isolated from a 9-wk early

CC human tissue cDNA library. The protein is structurally related to

CC the chemokine family. Recombinant Ck beta-10 can be obt. by

CC incorporating the cDNA into a vector and expression of the protein

CC in e.g. E. coli, COS or Sf9 cells. Ck beta-10 can be used to treat

CC solid tumours, chronic infections, psoriasis, asthma and allergy,

CC to regulate haematopoiesis, promote wound healing, and to inhibit
CC angiogenesis. It can also be used to inhibit bone marrow stem cell
CC colony form. during chemotherapy.
SQ Sequence 98 AA;

Query Match 93.8%; Score 91; DB 17; Length 98;
Best Local Similarity 83.3%; Pred. No. 2.31e-02;
Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 72 eicadpkexkvq 83
|||||:|:|:
QY 1 EICADPKQKMIQ 12

RESULT 27
ID W30191 standard; Protein; 98 AA.
AC W30191;
DT 21-MAY-1998 (first entry)
DE Monocyte chemotactic protein 5; MCP-5; human; macrophage;
KW Monocyte chemotactic protein 5; MCP-5; human; macrophage;
KW chemokine; inhibitor; antiinflammatory; atherosclerosis;
KW Crohn's disease; arthritis; angiogenesis; tumour; metastasis;
KW therapy; diagnosis; medical imaging.
OS Homo sapiens.
FH Key Location/Qualifiers
FT Peptide 1..23
FT /label= sig_peptide
FT 24..98
FT /label= Mat_protein
FT /note= "Claim 4"
PN MO9735982-A2.
PD 02-OCT-1997; 004898.
PF 26-MAR-1997; 004898.
PR 27-MAR-1996; US-622851.
PA (ICOS-) ICOS CORP.
PI Godiska R, Gray PW;
DR MPI: 97-489645/45.
N-PSDB; T90880.
TI Polynucleotide encoding monocyte chemotactic protein-5 - useful in
TI treatment of e.g. inflammation, atherosclerosis, angiogenesis and
PT tumours
PS Claim 1; Page 36-37; 47pp; English.
CC This polypeptide comprises human macrophage-derived
CC monocyte chemotactic protein-5 (MCP-5), a novel C-C chemokine.
CC Its amino acid sequence was deduced from a cDNA clone (see
CC T90880 and T90883) isolated from a human macrophage cDNA
CC library. A claimed method for producing MCP-5 comprises
CC culturing a host cell that is stably transformed or transfected
CC with MCP-5 polynucleotide. Also claimed is a hybridoma that
CC produces a monoclonal antibody (Mab) that is specifically
CC reactive with the mature MCP-5. MCP-5 (or its analogues and
CC fragments) is used to enhance the immune response in cases of
CC wounds or infections, while its inhibitors (e.g. the Mab) are
CC useful as anti-inflammatory in cases of e.g. arthritis and
CC Crohn's disease, also for treatment of atherosclerosis,
CC angiogenesis and tumour growth (or metastasis). The MCP-5
CC inhibitors can possibly also be used to reduce the damaging effects
CC of chemo- and radio-therapy on myeloid progenitor cells, and to
CC inhibit replication of HIV. MCP-5 can also be used to identify
CC its cognate receptor, while MCP-5 peptides (or the analogues or
CC receptors) are used to modulate MCP-5 activity and to identify
CC MCP-5 agonists and antagonists.
SQ Sequence 98 AA;

Query Match 93.8%; Score 91; DB 28; Length 98;
Best Local Similarity 83.3%; Pred. No. 2.31e-02;
Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 72 eicadpkexkvq 83
|||||:|:|:
QY 1 EICADPKQKMIQ 12

RESULT 28
ID W22670 standard; Protein; 98 AA.
AC W22670;
DT 19-MAR-1998 (first entry)
DE Human chemokine beta10 or monocyte chemotactic protein 4;
KW Human chemokine beta10; Ck beta10; treatment; antagonist;
KW solid tumour; infection; autoimmune disease; asthma; antibody;
KW fibrotic disease; psoriasis; neurodegenerative disease;
KW wound healing; haematopoiesis regulation; gene therapy;
KW chromosome identification; monocyte chemotactic protein 4;
KW leukaemia; MCP-4.
OS Homo sapiens.

FH Key Location/Qualifiers
FT Peptide 1..23
FT /label= sig_peptide
FT 24..98
FT /label= mat_peptide
PN MO9731098-A1.
PD 23-FEB-1996; 002598.
PF 23-FEB-1996; WO-002598.
PR (HUMA-) HUMAN GENOME SCI INC.
PA Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
PI Parmelee D, White J;
DR MPI: 97-435153/40.
N-PSDB; T85029.

PT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
PT protein 4 - useful to treat tumours, autoimmune disease, infection,
PT asthma and fibrosis
PS Claim 1; Fig 2; 83pp; English.
CC The present sequence is human chemokine beta10 (Ck beta10) or
CC monocyte chemotactic protein 4 (MCP-4), which can be used to treat
CC patients deficient in Ck beta10, while a Ck beta10 antagonist can
CC be used to reduce excessive levels of Ck beta10. Ck beta10 can be
CC used to treat leukaemia, solid tumours, chronic or opportunistic
CC infections, autoimmune diseases, asthma, fibrotic diseases,
CC psoriasis and neurodegenerative diseases. It also promotes wound
CC healing, regulates haematopoiesis and generates antibodies.
CC Labeled Ck beta10 can be used to identify its cognate receptor,
CC while cells expressing the receptor can be used to screen compounds
CC for (ant)agonist activity. The antagonist can be used to treat
CC rheumatoid arthritis, autoimmune, chronic inflammatory or
CC infectious diseases, allergies, prostaglandin dependent fever and
CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
CC syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can
CC be used to isolate genes encoding similar peptides, in gene therapy
CC and for chromosome identification.
SQ Sequence 98 AA;

Query Match 93.8%; Score 91; DB 27; Length 98;
Best Local Similarity 83.3%; Pred. No. 2.31e-02;
Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 72 eicadpkexkvq 83
|||||:|:|:
QY 1 EICADPKQKMIQ 12

RESULT 29
ID R06398 standard; Protein; 99 AA.
AC R06398;
DT 14-DEC-1990 (first entry)
DE Human MCP precursor.
KW Monocyte chemotactic factor; antibacterial; antitumour; cancer.
OS Homo sapiens.

FH Key Location/Qualifiers
FT Peptide 24..99
FT /label= mature MCF
FT /note= "Claim 1"
PN misc_difference 76
PD MO9007863-A.
26-JUL-1990.

PF 02-JAN-1990: U00004.
 PR 01-JAN-1988: JP-000065.
 PR 03-FEB-1989: JP-026438.
 PA (USDC) US SEC OF COMMERCE.
 PI Furtani Y, Fukui T, Junichi Y, Masaaki Y, Matsushina K;
 PI Oppenheim J;
 DR MPI: 90-253802/33.
 DR P-PSDB: R06398.
 PT Human monocyte chemotactic factor type polypeptide and DNA
 PT encoding it - useful as antibacterial and antitumour agents.
 PS Claim 2: Page 25: 27pp; English.
 CC The sequence was deduced from the DNA sequence determined from
 CC three recombinant plasmids, pMCF7, pMCF25 and pMCF29 which
 CC were isolated from a cDNA library prepd. from RNA extracted from
 CC human promyelocytic leukemia cell line, HL-60 (ATCC CCL-240).
 CC vectors. In plasmids pMCF7 and pMCF29 bases 105 and 226 were
 CC T and G resp; in pMCF25 they were C and A resp. The AA at posn.
 CC 76 of the precursor protein is therefore not determined and may be
 CC either Ala or Thr. The protein may be produced by recombinant of
 CC DNA techniques in E.coli, and is useful as a drug for treatment of
 CC certain bacterial infections and cancers.
 SQ Sequence 99 AA;

Query Match 93.8%; Score 91; DB 2; Length 99;
 Best Local Similarity 83.3%; Pred. No. 2.31e-02;
 Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

DB 73 elcxdkpkqkvwg 84
 ||| |||||
 QY 1 EICADPKQKWIQ 12

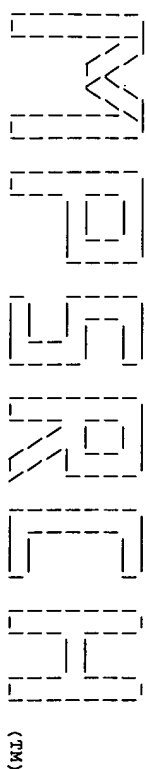
RESULT 30
 ID R26580 standard; Protein; 76 AA.
 AC R26580;
 DT 28-JAN-1993 (first entry)
 DE Sequence of bovine p6 protein.
 KM Monocyte chemoattractant; bovine p6-derivative; thrombosis; tumour;
 KM Inflammation therapy.
 OS Bos taurus.
 PN DE4125251-C.
 PD 03-SEP-1992.
 PF 31-JUL-1991: 125251.
 PR 31-JUL-1991: DE-125251.
 PA (SCHA-) SCHAPER & BRUEMME GMBH & CO KG.
 PI Gramm W, Lins E;
 DR MPI: 92-293438/36.
 PT Drug containing a bovine protein homologous to human MCP-1 - for
 PT treating inflammation, tumours, thrombosis, and immune reactions,
 PT also for diagnosis
 PS Claim 1: Page 3: 6pp; German.
 CC Poly(A+)RNA from bull seminal vesicles was used to prepare a cDNA in
 CC the expression vector lambda gtl1. 1.5 x 10(5) cDNA clones were
 CC screened with a polyclonal anti-p6 antiserum of monospecific
 CC immunoglobulin G and six positives were identified. The insert of a
 CC suitable cDNA clone, pH42, was cloned into pUC18 and sequenced.
 CC pH42 encodes the 11,114 Da precursor of p6. It is called Monocyte
 CC Chemoattractant (MCP-1), which is a homologue of human (h)MCP-1.
 CC There is 72% overall AA sequence homology to hMCP-1 with the signal
 CC peptide showing 100% and the central region showing 89% homology.
 SQ Sequence 76 AA;

Query Match 92.8%; Score 90; DB 5; Length 76;
 Best Local Similarity 83.3%; Pred. No. 2.94e-02;
 Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

DB 50 elcadpkqkvwg 61
 ||| |||||
 QY 1 EICADPKQKWIQ 12

Search completed: Thu Apr 1 07:43:56 1999
 Job time : 23 secs.

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Msrch_bp protein - protein database search, using Smith-Waterman algorithm
Run on: Thu Apr 1 07:42:51 1999; MasPar time 3.31 Seconds
Tabular output not generated. 135.879 Million cell updates/sec

Title: >US-08-927-939-13
Description: (1-12) from US08927939.pep
Perfect Score: 97
Sequence: 1 EICADPKQKMIQ 12

Scoring table:
PAM 150
Gap 15

Searched: 116738 segs, 37463448 residues

Post-processing: Minimum Match 0%
Listing first 100 summaries

Database: p1r58
1:p1r1 2:p1r2 3:p1r3 4:p1r4

Statistics: Mean 24.746; Variance 36.390; scale 0.680

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description	Pred. No.
1	95	97.9	99	2	A60299	4.69e-08
2	94	96.9	99	2	JC2136	7.85e-08
3	90	92.8	99	2	A39296	6.07e-07
4	90	92.8	99	2	JC2336	6.07e-07
5	89	91.8	125	2	I46857	1.01e-06
6	88	90.7	109	2	A54678	1.67e-06
7	86	88.7	99	2	JC2417	4.56e-06
8	86	88.7	120	2	I48147	4.56e-06
9	84	86.6	97	2	JC4912	1.23e-05
10	82	84.5	95	2	JN0841	3.31e-05
11	82	84.5	96	2	JC2478	3.31e-05
12	82	84.5	96	2	I46099	3.31e-05
13	82	84.5	101	2	I46997	3.31e-05
14	82	84.5	101	2	S42496	3.31e-05
15	82	84.5	103	2	A53096	3.31e-05
16	82	84.5	103	2	A44253	3.31e-05
17	81	83.5	92	2	I52325	5.41e-05
18	80	82.5	99	2	JC5295	8.82e-05
19	79	81.4	101	2	I46871	1.43e-04
20	78	80.4	148	2	A30209	2.32e-04
21	77	79.4	89	2	A53497	3.76e-04
22	77	79.4	89	2	I53416	3.76e-04
23	77	79.4	93	2	I81182	3.76e-04

24	77	79.4	93	2	G01540	3.76e-04	cytokine SDF-1-beta -
25	74	76.3	92	2	A32393	1.57e-03	macrophage inflammatory
26	74	76.3	148	2	S07723	1.57e-03	immediate-early serum
27	73	75.3	99	2	A37034	2.51e-03	interleukin-8 precurs
28	73	75.3	101	2	I48148	2.51e-03	Neutrophil attractant
29	72	74.2	91	1	A46539	4.01e-03	monocyte chemoattract
30	70	72.2	50	2	C60407	1.01e-02	monocyte adherence-in
31	70	72.2	92	1	A31767	1.01e-02	macrophage inflammatory
32	70	72.2	92	2	A30574	1.01e-02	macrophage inflammatory
33	70	72.2	93	2	B35673	1.01e-02	LD78-beta protein pre
34	68	70.1	120	2	JE0177	2.53e-02	immune activation and
35	67	69.1	92	2	I46730	3.97e-02	immune activation and
36	66	68.0	91	1	A28815	6.23e-02	monocyte chemoattract
37	66	68.0	97	2	A48093	6.23e-02	monocyte chemoattract
38	66	68.0	114	1	ETMSL	6.23e-02	lymphocytic cytokine FI
39	64	66.0	760	2	S55520	1.51e-01	Chitin synthetase I -
40	61	62.9	103	2	I50417	5.59e-01	RSV-induced protein -
41	61	62.9	103	2	I50417	5.59e-01	transformation-induce
42	60	61.9	92	2	C30552	8.57e-01	macrophage inflammatory
43	60	61.9	117	2	S51775	8.57e-01	hypothetical protein
44	60	61.9	1053	2	D71466	8.57e-01	probable ribonucleosid
45	59	60.8	114	1	ETRHUL	1.31e+00	lymphocytic cytokine
46	58	59.8	460	2	E64019	1.99e+00	hypothetical protein
47	57	58.8	116	2	I49555	3.02e+00	gene C10 protein - mo
48	57	58.8	176	2	G65065	3.02e+00	hypothetical protein
49	57	58.8	187	2	C71317	3.02e+00	hypothetical protein
50	55	56.7	178	2	F69804	6.83e+00	hypothetical protein
51	55	56.7	192	2	E71437	6.83e+00	probable resistance g
52	55	56.7	378	2	A49337	6.83e+00	alanine dehydrogenase
53	54	55.7	187	2	D42465	1.02e+01	polarity suppression
54	54	55.7	26926	1	I38344	1.02e+01	titin, cardiac muscle
55	53	54.6	140	1	WVWZM3	1.52e+01	HM3 protein - sheep p
56	53	54.6	145	2	S76877	1.52e+01	hypothetical protein
57	53	54.6	350	2	S51406	1.52e+01	hypothetical protein
58	53	54.6	397	2	S67061	1.52e+01	hypothetical protein
59	53	54.6	491	2	S48827	1.52e+01	1-aminocyclopropane-1
60	53	54.6	627	2	C69637	1.52e+01	DNA gyrase-like prote
61	53	54.6	828	2	S52393	1.52e+01	beta-galactosidase (E
62	52	53.6	349	2	D64134	2.24e+01	probable ATP-binding
63	52	53.6	825	2	S75173	2.24e+01	hypothetical protein
64	52	53.6	841	2	A43254	2.24e+01	protein-tyrosine-phos
65	52	53.6	1872	2	JC4976	2.24e+01	plexin 3 - mouse
66	52	53.6	2179	1	GNNYH4	2.24e+01	genome polyploid
67	51	52.6	37	2	B70566	3.30e+01	probable ribosomal pr
68	51	52.6	37	2	S58585	3.30e+01	ribosomal protein L36
69	51	52.6	37	1	R5R236	3.30e+01	ribosomal protein L36
70	51	52.6	37	1	R5PM81	3.30e+01	ribosomal protein L36
71	51	52.6	92	2	S24236	3.30e+01	TC3 protein - mouse
72	51	52.6	196	2	E64101	3.30e+01	invasion protein - Ha
73	51	52.6	219	2	S68364	3.30e+01	pectate lyase (Ec 4.2
74	51	52.6	532	1	IFBY	3.30e+01	beta-fructofuranosida
75	51	52.6	532	2	S27373	3.30e+01	beta-fructofuranosida
76	51	52.6	573	2	C64611	3.30e+01	hypothetical protein
77	51	52.6	899	2	G02428	3.30e+01	prohormone convertase
78	51	52.6	905	2	A27410	3.30e+01	plasma cell membrane
79	51	52.6	915	2	B46225	3.30e+01	probable proprotein c
80	51	52.6	915	2	A48225	3.30e+01	subtilisin-like prope
81	52	53.6	915	2	JC6148	3.30e+01	subtilisin-like prope
82	51	52.6	1038	2	A71437	3.30e+01	probable resistance g
83	51	52.6	1422	2	B71437	3.30e+01	probable resistance g
84	50	51.5	108	2	A60340	4.88e+01	hypothetical protein
85	50	51.5	108	2	G70567	4.88e+01	N-terminus of I56110
86	50	51.5	281	1	A47629	4.88e+01	cell surface glycopro
87	50	51.5	332	2	H69494	4.88e+01	pyruvate formate-lyas
88	50	51.5	379	2	JC5303	4.88e+01	hydrolytic al 1.7K pr
89	50	51.5	430	2	JC5163	4.88e+01	ultraviral light res
90	50	51.5	467	2	S64450	4.88e+01	probable membrane pro
91	50	51.5	467	2	S61141	4.88e+01	cytochrome P450 76A2
92	50	51.5	505	2	S38534	4.88e+01	nrc protein - Synech
93	50	51.5	659	2	S30893	4.88e+01	hypothetical protein
94	50	51.5	929	2	S75098	4.88e+01	clathrin heavy chain
95	50	51.5	1675	1	LRRTH	4.88e+01	ribosomal protein L36
96	49	50.5	37	2	A64682	7.04e+01	

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97 49 50.5 37 2 S73217 ribosomal protein l36 7.04e+01
98 49 50.5 389 2 E71113 probable nonspecific 7.04e+01
99 49 50.5 550 2 I64203 aspartate--tRNA ligase 7.04e+01
100 49 50.5 662 1 VCMV1B env polypeptide - fel 7.04e+01

ALIGNMENTS

RESULT 1
ENTRY A60299 #type complete
TITLE monocyte chemoattractant protein 1 precursor - human
ALTERNATE_NAMES GDCP-1; glioma-derived monocyte chemotactic factor 1; MCAF;
MCP-1; monocyte chemotactic factor 1; monocyte secretory
protein; tumor-derived chemotactic factor
glioma-derived chemotactic factor 2 (GDCF-2)
#formal_name Homo sapiens #common_name man
20-Feb-1993 #sequence_revision 20-Feb-1993 #text_change
20-Mar-1998

CONTAINS
ORGANISM
DATE

ACCESSIONS
A35474; A33476; S03339; I51841; A60299; A32300; A32396;
A34561; I57488; JCI096

REFERENCE
#authors Shyy, Y.J.; Li, Y.S.; Kolatukudy, P.E.
#journal Biochem. Biophys. Res. Commun. (1990) 169:346-351
#title Structure of human monocyte chemotactic protein gene and its
regulation by TPA.
#cross-references MUID:90290466
#accession A35474
#molecule_type DNA
#residues 1-99 #label SHY

REFERENCE
#cross-references GB:M37719; NID:g187447; PID:g487124
#authors Rollins, B.J.; Stier, P.; Ernst, T.; Wong, G.G.
#journal Mol. Cell. Biol. (1989) 9:4687-4695
#title The human homolog of the JE gene encodes a monocyte secretory
protein.
#cross-references MUID:90097880
#accession A33476
#molecule_type mRNA
#residues 1-99 #label ROL
#cross-references GB:M30816; GB:M31625; GB:M31626; NID:g188701;
PID:g386961

REFERENCE
#authors Yoshimura, T.; Yuhki, N.; Moore, S.K.; Appella, E.; Lerman,
M.I.; Leonard, E.J.
#journal FEBS Lett. (1989) 244:487-493
#title Human monocyte chemoattractant protein-1 (MCP-1). Full-length
cDNA cloning, expression in mitogen-stimulated blood
mononuclear leukocytes, and sequence similarity to mouse
competence gene JE.
#cross-references MUID:89153605
#accession S03339
#status not compared with conceptual translation
#molecule_type mRNA
#residues 1-99 #label YOS
#cross-references GB:X14768; NID:g34513; PID:g34514
##experimental_source glioma cell line U-105MG

REFERENCE
#authors Yoshimura, T.; Leonard, E.J.
#journal Adv. Exp. Med. Biol. (1991) 305:47-56
#title Human monocyte chemoattractant protein-1 (MCP-1).
#cross-references MUID:92095166
#accession I51841
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-99 #label Y02
#cross-references GB:S71513; NID:g240867; PID:g240868

REFERENCE
#authors Botatzaki, B.; Colotta, F.; Sica, A.; Nobili, N.; Mantovani,
A.
#journal Int. J. Cancer (1990) 45:795-797
#title A chemoattractant expressed in human sarcoma cells
(tumor-derived chemotactic factor, TDCF) is identical to
monocyte chemoattractant protein-1/monocyte chemotactic and

```

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#accession A60299 activating factor (MCP-1/MCAF).
#status not compared with conceptual translation
#molecule_type mRNA
#residues 1-99 #label BOT

REFERENCE
#authors Puttani, Y.; Nomura, H.; Notake, M.; Oyama, Y.; Fukui, T.;
Yamada, M.; Larsen, C.G.; Oppenheim, J.U.; Matsushima, K.
#journal Biochem. Biophys. Res. Commun. (1989) 159:249-255
#title Cloning and sequencing of the cDNA for human monocyte
chemotactic and activating factor (MCAF).
#cross-references MUID:89165862
#accession A32300
#status not compared with conceptual translation
#molecule_type mRNA
#residues 1-99 #label FUR
#cross-references GB:M24545; NID:g187434; PID:g307163

REFERENCE
#authors Robinson, E.A.; Yoshimura, T.; Leonard, E.J.; Tanaka, S.;
Griffin, P.R.; Shabanowitz, J.; Hunt, D.F.; Appella, E.
#journal Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1850-1854
#title Complete amino acid sequence of a human monocyte
chemotactant, a putative mediator of cellular immune
reactions.
#cross-references MUID:89184525
#accession A32396
#molecule_type protein
#residues 'X', 25-99 #label ROB

REFERENCE
#authors Decock, B.; Conlins, R.; Lenaerts, J.P.; Billiau, A.; Van
Damme, J.
#journal Biochem. Biophys. Res. Commun. (1990) 167:904-909
#title Identification of the monocyte chemotactic protein from human
osteosarcoma cells and monocytes: detection of a novel
N-terminally processed form.
#cross-references MUID:90211336
#accession A34561
#molecule_type protein
#residues 29-33, 'XX', 36-52; 82-92 #label DEC

REFERENCE
#authors Li, Y.S.; Shyy, Y.J.; Wright, J.G.; Valente, A.J.; Cornhill,
J.F.; Kolatukudy, P.E.
#journal Mol. Cell. Biochem. (1993) 126:61-68
#title The expression of monocyte chemotactic protein (MCP-1) in
human vascular endothelium in vitro and in vivo.
#cross-references MUID:94150478
#accession I57488
#status translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-99 #label LYX
#cross-references GB:S69738; NID:g545464; PID:g545465

REFERENCE
#authors Ye, Q.N.; Su, G.F.; Yuan, Y.; Huang, C.F.
#journal Chinese J. Microbiol. Immunol. (1994) 14:29-32
#title The PCR, cloning and sequencing of human monocyte
chemotactant protein-1 (MCP-1) gene.
#accession JCI096
#molecule_type mRNA
#residues 24-28, 'Q', 30-99 #label YEQ

GENETICS
#gene GDB:SCYA2
#map_position 17q11.2-17q12
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS cytokine; glycoprotein; inflammation; pyroglutamic acid
FEATURE
1-23
24-99
29-99
24 #domain signal sequence #status predicted #label SIG\
#product monocyte chemoattractant protein 1 #status
#status experimental #label MAT\
#modified site pyrrolidone carboxylic acid (Gln) (in
mature form) #status experimental\

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37      #binding_site carbohydrate (asn) (covalent) #status
SUMMARY      #length 99 #molecular-weight 11025 #checksum 7984
Query Match      97.9%; Score 95; DB 2; Length 99;
Best Local Similarity 91.7%; Pred. No. 4,69e-08;
Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db      73 EICADPKOKRWQ 84
      1 EICADPKOKRWQ 12

RESULT      2
ENTRY      JC2136      #type complete
TITLE      monocytic chemoattractant protein-1 precursor - pig
ORGANISM   #formal_name Sus scrofa domestica #common_name domestic pig
DATE       30-Sep-1993 #sequence_revision 20-Aug-1994 #text_change
ACCESSIONS JC2136; S57498
REFERENCE   JC2136
AUTHORS     Hosang, K.; Knoke, I.; Klaudiny, J.; Wempe, F.; Wuttke, W.;
            Scheit, K.H.
            Biochem. Biophys. Res. Commun. (1994) 199:962-968
            Porcine luteal cells express monocytic chemoattractant
            protein-1 (MCP-1): Analysis by polymerase chain reaction
            and cDNA cloning.
#accession  JC2136
#molecule_type mRNA
#residues   1-99 ##label HOS
REFERENCE   S57497
AUTHORS     Zach, O.
            Submitted to the EMBL Data Library, July 1994
#submission 557498
#accession  S57498
#status     preliminary
#molecule_type mRNA
#residues   1-99 ##label ZAC
#cross-references EMBL:X79416; NID:g872312; PID:g872313
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS     glycoprotein

1-23
24-99
94      #domain signal sequence #status predicted #label SIG\
SUMMARY      #length 99 #molecular-weight 10976 #checksum 9768
Query Match      96.9%; Score 94; DB 2; Length 99;
Best Local Similarity 83.3%; Pred. No. 7,85e-08;
Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db      73 EICADPKOKRWQ 84
      1 EICADPKOKRWQ 12

RESULT      3
ENTRY      A39296      #type complete
TITLE      monocytic chemoattractant protein 1 precursor - bovine
ALTERNATE_NAMES #formal_name Bos primigenius taurus #common_name cattle
ORGANISM   #formal_name Bos primigenius taurus #common_name cattle
DATE       03-Aug-1992 #sequence_revision 03-Aug-1992 #text_change
ACCESSIONS A39296; B39296
REFERENCE   A39296
AUTHORS     Wempe, F.; Henschen, A.; Scheit, K.H.
            DNA Cell Biol. (1991) 10:671-679
            Gene expression and cDNA cloning identified a major basic
            protein constituent of bovine seminal plasma as bovine
            monocytic-chemoattractant protein-1 (MCP-1).
#cross-references MUID:92096117
#accession  A39296

#molecule_type mRNA
#residues   1-99 ##label WEM
#cross-references GB:M84602; GB:M85264; NID:g163394; PID:g163395
#accession  B39296
#molecule_type protein
#residues   50-68, 'X', 70-74, 'X', 76 ##label WP2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS     glycoprotein

1-23
24-99
94      #domain signal sequence #status predicted #label SIG\
SUMMARY      #length 99 #molecular-weight 11114 #checksum 9401
Query Match      92.8%; Score 90; DB 2; Length 99;
Best Local Similarity 83.3%; Pred. No. 6,07e-07;
Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db      73 EICADPKOKRWQ 84
      1 EICADPKOKRWQ 12

RESULT      4
ENTRY      JC2336      #type complete
TITLE      monocytic chemoattractant protein-1 - bovine
ORGANISM   #formal_name Bos primigenius indicus #common_name zebu cattle
DATE       20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change
ACCESSIONS JC2336
REFERENCE   JC2336
AUTHORS     Wempe, F.; Kuhlmann, J.K.; Scheit, K.H.
            Biochem. Biophys. Res. Commun. (1994) 202:1272-1279
            Characterization of the bovine monocytic chemoattractant
            protein-1 gene.
#accession  JC2336
#molecule_type protein
#residues   1-99 ##label WEM

GENETICS
#gene       MCP-1
#introns    26/1; 65/2
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY      #length 99 #molecular-weight 11114 #checksum 9401
Query Match      92.8%; Score 90; DB 2; Length 99;
Best Local Similarity 83.3%; Pred. No. 6,07e-07;
Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db      73 EICADPKOKRWQ 84
      1 EICADPKOKRWQ 12

RESULT      5
ENTRY      I46857      #type complete
TITLE      monocytic chemoattractant protein-1 - rabbit
ORGANISM   #formal_name Oryctolagus cuniculus #common_name domestic
            rabbit
DATE       14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change
ACCESSIONS I46857
REFERENCE   I46857
AUTHORS     Yoshimura, T.; Yuhki, N.
            J. Immunol. (1991) 146:3483-3488
            Neutrophil attractant/activation protein-1 and monocytic
            chemoattractant protein-1 in rabbit: cDNA cloning and their
            expression in spleen cells.
#cross-references MUID:91225489
#accession  I46857
#status     preliminary; translated from GB/EMBL/DBJ
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##molecule_type mRNA
##residues 1-125 ##label YOS
##cross-references GB:M57440; NID:g165469; PID:g165470
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 125 #molecular-weight 13776 #checksum 4498

Query Match 91.8% Score 89; DB 2; Length 125;
Best Local Similarity 90.9%; Pred. No. 1.01e-06;
Matches 10; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 74 ICADPKQKWQ 84
QY 2 ICADPKQKWQ 12
|||||||:|

RESULT 6
ENTRY #type complete
TITLE monocyte chemotactic protein 3 precursor - human
ALTERNATE_NAMES monocyte chemoattractant protein MCP-3
ORGANISM #formal_name Homo sapiens #common_name man
DATE 28-Oct-1994 #sequence_revision 28-Oct-1994 #text_change 24-Sep-1998
ACCESSIONS A54678; S32222
REFERENCE A54678
#authors Opdenakker, G.; Flieten, P.; Nys, G.; Froyen, G.; Van Roy, N.; Speleman, F.; Laureys, G.; Van Damme, J.
#journal Genomics (1994) 21:403-408
#title The human MCP-3 gene (SCYA7): cloning, sequence analysis, and assignment to the C-C chemokine gene cluster on chromosome 17q11.2-q12.
#accession A54678
##molecule_type DNA
##residues 1-109 ##label OPD
##cross-references GB:X72309
REFERENCE JCI478
#authors Opdenakker, G.; Froyen, G.; Flieten, P.; Proost, P.; Van Damme, J.
#journal Biochem. Biophys. Res. Commun. (1993) 191:535-542
#title Human monocyte chemotactic protein-3 (MCP-3): Molecular cloning of the cDNA and comparison with other chemokines.
#accession JCI478
##molecule_type mRNA
##residues 1-109 ##label OP2
REFERENCE S32222
#authors Mlty, A.; Chalon, P.; Guillemot, J.C.; Kaghad, M.; Lianzun, P.; Magazin, M.; Miloux, B.; Miny, C.; Ramond, P.; Vita, N.; Luyker, J.; Shire, D.; Ferrara, P.; Caput, D.
#submission submitted to the EMBL Data Library, March 1993
#description Molecular cloning of MCP-3: a human monocyte-derived monocyte chemoattractant protein.
#accession S32222
##molecule_type mRNA
##residues 1-109 ##label MIN
##cross-references EMBL:X71087; NID:g288396; PID:g288397
COMMENT This protein induces proteinase secretion and chemotaxis by macrophages and monocytes.

GENETICS
#gene GDB:SCYA7; SCYA6; MCP-3
#map_position 17q11.1-17q12
#introns 36/1; 75/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS cytokine; glycoprotein; inflammation
FEATURE
1-33 #domain signal sequence #status predicted #label SIG
34-109 #product monocyte chemotactic protein 3 #status predicted #label MAT
39 #binding_site carboxylate (Asn) (covalent) #status predicted

SUMMARY #length 109 #molecular-weight 12356 #checksum 1535

Query Match 90.7% Score 88; DB 2; Length 109;
Best Local Similarity 83.3%; Pred. No. 1.67e-06;

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Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
Db 83 EICADPTOKRWQ 94
1 EICADPKOKRWIQ 12
RESULT 7
ENTRY JC2417 #type complete
TITLE monocyste chemoattractant protein-2 - pig
ORGANISM #format_name Sus scrofa domestica #common_name domestic pig
DATE 24-Feb-1995 #sequence_revision 24-Feb-1995 #text_change 03-May-1996
ACCESSIONS JC2417
REFERENCE JC2417
AUTHORS Hosang, K.; Knoke, I.; Klaudiny, J.; Wempe, F.; Wuttke, W.; Schelt, K.H.
#journal Biochem. Biophys. Res. Commun. (1994) 205:148-153
#title Porcine luteal cells express monocyste chemoattractant protein-2 (MCP-2): Analysis by cDNA cloning and northern analysis.
#accession JC2417
##molecule_type mRNA
##residues 1-99 ##label HOS
##experimental_source corpus luteum
CLASSIFICATION #superfamily macrophage inflammatory protein
FEATURE
1-23 #domain signal sequence #status predicted #label SIG\
24-99 #product monocyste chemoattractant protein-2 #status predicted #label MAP
SUMMARY #length 99 #molecular_weight 10903 #checksum 7556
Query Match 88.7%; Score 86; DB 2; Length 99;
Best Local Similarity 75.0%; Pred. No. 4.56e-06;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
Db 73 EVCADPTOKRWQ 84
1 EICADPKOKRWIQ 12
RESULT 8
ENTRY 148147 #type complete
TITLE monocyste chemoattractant protein-1 - guinea pig
ORGANISM #format_name Cavia porcellus #common_name guinea pig
DATE 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 09-May-1997
ACCESSIONS 148147
REFERENCE 148147
AUTHORS Yoshimura, T.
#journal J. Immunol. (1993) 150:5025-5032
#title cDNA cloning of guinea pig monocyste chemoattractant protein and expression of the recombinant protein.
#cross_references MUID:93267104
#accession 148147
##status preliminary; translated from GB/EMBL/DBJ
##molecule_type mRNA
##residues 1-120 ##label RES
##cross_references GB:L04985; NID:g349820; PID:g349821
GENETICS MCP-1
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 120 #molecular_weight 13741 #checksum 9252
Query Match 88.7%; Score 86; DB 2; Length 120;
Best Local Similarity 75.0%; Pred. No. 4.56e-06;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
Db 71 EVCADPTOKRWQ 82
1 EICADPKOKRWIQ 12

```

```

RESULT 9
ENTRY JC4912 #type complete
TITLE eotaxin - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 01-Nov-1996 #sequence_revision 01-Nov-1996 #text_change
08-Sep-1997
ACCESSIONS
REFERENCE JC4912
#authors Bartels, J.; Schluter, C.; Richter, E.; Noso, N.; Kulke, R.;
Christophers, E.; Schroeder, J.M.
Biochem. Biophys. Res. Commun. (1996) 225:1045-1051
Human dermal fibroblasts express eotaxin: Molecular cloning,
mRNA expression, and identification of eotaxin sequence
variants.
#accession JC4912
#status preliminary
#molecule_type mRNA
#residues 1-97 ##label BAR
#cross-references EMBL:Z75668; NID:G1531982; PID:G1531983
#experimental_source dermal fibroblast
COMMENT This protein has eosinophil specific chemotactic activity.
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS fibroblast
FEATURE
1-18 #domain signal sequence #status predicted #label SIG\
19-97 #product eotaxin #status predicted #label MAT
SUMMARY #length 97 #molecular_weight 10790 #checksum 448

Query Match 86.6%; Score 84; DB 2; Length 97;
Best Local Similarity 66.7%; Pred. No. 1.23e-05;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 71 ICADPKKKRWQ 82
:|||||:|:|
QY 1 EICADPKKKRWQ 12

RESULT 10
ENTRY JN0841 #type complete
TITLE Interleukin-8 - dog
ORGANISM #formal_name Canis lupus familiaris #common_name dog
DATE 19-May-1994 #sequence_revision 19-May-1994 #text_change
12-Apr-1995
ACCESSIONS
REFERENCE JN0841
#authors Ishikawa, J.; Suzuki, S.; Hotta, K.; Hirota, Y.; Mizuno, S.;
Suzuki, K.
Gene (1993) 131:305-306
Cloning of a canine gene homologous to the human
Interleukin-8-encoding gene.
#accession JN0841
#molecule_type DNA
#residues 1-95 ##label ISH
COMMENT This protein is a polymorphonuclear leukocytes chemotactic factor
and is involved in the host defense function.
GENETICS
#introns 22/1: 67/2
CLASSIFICATION #superfamily beta-chromoglobulin
SUMMARY #length 95 #molecular_weight 10611 #checksum 3157

Query Match 84.5%; Score 82; DB 2; Length 95;
Best Local Similarity 66.7%; Pred. No. 3.31e-05;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 75 EYCLDPKKRWQ 86
:|:|||||:|
QY 1 EICADPKKKRWQ 12

RESULT 11
ENTRY JC2478 #type complete
TITLE eotaxin - rat
ORGANISM #formal_name Rattus norvegicus #common_name Norway rat

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DATE 21-Feb-1995 #sequence_revision 05-Apr-1995 #text_change
08-Sep-1997
ACCESSIONS
REFERENCE JC2478
#authors Jose, P.J.; Adcock, I.M.; Griffiths-Johnson, D.A.; Berkman,
N.; Wells, T.N.C.; Williams, T.J.; Power, C.A.
Biochem. Biophys. Res. Commun. (1994) 205:788-794
Eotaxin: Cloning of an eosinophil chemottractant cytokine
and increased mRNA expression in allergen-challenged
guinea-pig lungs.
#accession JC2478
#molecule_type mRNA
#residues 1-96 ##label JOS
#cross-references EMBL:X77603; NID:G602551; PID:G602552
COMMENT This protein is identified as a potent eosinophil chemottractant.
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS glycoprotein
FEATURE
1-23 #domain signal sequence #status predicted #label SIG\
24-96 #product eotaxin #status predicted #label MAT\
93 #binding_site carbohydrate (Thr) (covalent) #status
predicted
SUMMARY #length 96 #molecular_weight 10695 #checksum 7329

Query Match 84.5%; Score 82; DB 2; Length 96;
Best Local Similarity 81.8%; Pred. No. 3.31e-05;
Matches 9; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 71 ICADPKKKRWQ 81
:|||||:|:|
QY 2 ICADPKKKRWQ 12

RESULT 12
ENTRY I48099 #type complete
TITLE eotaxin precursor - guinea pig
ORGANISM #formal_name Cavia porcellus #common_name guinea pig
DATE 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
09-May-1997
ACCESSIONS
REFERENCE I48099
#authors Rothenberg, M.E.; Luster, A.D.; Lilly, C.M.; Drazen, J.M.;
Leder, P.
J. Exp. Med. (1995) 181:1211-1216
Constitutive and allergen-induced expression of eotaxin mRNA
in the guinea pig lung.
#cross-references MUID:95173589
#accession I48099
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-96 ##label RES
#cross-references EMBL:U18941; NID:G687655; PID:G687656
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 96 #molecular_weight 10753 #checksum 7236

Query Match 84.5%; Score 82; DB 2; Length 96;
Best Local Similarity 81.8%; Pred. No. 3.31e-05;
Matches 9; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 71 ICADPKKKRWQ 81
:|||||:|:|
QY 2 ICADPKKKRWQ 12

RESULT 13
ENTRY I46997 #type complete
TITLE Interleukin-8 - sheep
ORGANISM #formal_name Ovis sp. #common_name sheep
DATE 21-Feb-1997 #sequence_revision 21-Feb-1997 #text_change
09-May-1997
ACCESSIONS
REFERENCE I46997
#authors Seow, H.F.; Yoshimura, T.; Wood, P.R.; Colditz, I.G.

```

```
#journal      Immunol. Cell Biol. (1994) 72:398-405
#title        Cloning, sequencing, expression and inflammatory activity in
#cross-references MUID:95137691
#accession    146997
#status       preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues     1-101 #label SEQ
#cross-references GB:S74436; NID:g786590; PID:g786591
GENETICS
#gene         OIL-8
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY       #length 101 #molecular-weight 11292 #checksum 294
Query Match   84.5%; Score 82; DB 2; Length 101;
Best Local Similarity 66.7%; Pred. No. 3.31e-05;
Matches       8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 75 EVCLDPKREKWQ 86
|:| |||:|:|:|
QY 1 EICADPKOKWIO 12

RESULT 14
ENTRY      S42496 #type complete
TITLE      Interleukin 8 - sheep
ORGANISM   #formal_name Ovis orientalis aries, Ovis ammon aries
            #common_name domestic sheep
DATE       06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change
            08-Sep-1997
ACCESSIONS S42496
REFERENCE   Legasteleis, I.; Greenland, T.; Arnaud, P.; Mornex, J.F.;
            Cordier, G.
            submitted to the EMBL Data Library, March 1994
            Nucleotide sequence of ovine interleukin 8 cDNA using
            polymerase chain reaction.
#accession  S42496
#status      preliminary
#molecule_type mRNA
#residues    1-101 #label LRG
#cross-references EMBL:X78306; NID:g463253; PID:g463254
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY       #length 101 #molecular-weight 11292 #checksum 294
Query Match   84.5%; Score 82; DB 2; Length 101;
Best Local Similarity 66.7%; Pred. No. 3.31e-05;
Matches       8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 75 EVCLDPKREKWQ 86
|:| |||:|:|:|
QY 1 EICADPKOKWIO 12

RESULT 15
ENTRY      A53096 #type complete
TITLE      Interleukin-8 precursor - pig
ORGANISM   #formal_name Sus scrofa domestica #common_name domestic pig
DATE       02-Jun-1995 #sequence_revision 02-Jun-1995 #text_change
            08-Sep-1997
ACCESSIONS A53096
REFERENCE   Lin, G.; Pearson, A.E.; Scamurra, R.W.; Zhou, Y.; Baarsch,
            M.J.; Weiss, D.J.; Murttaugh, M.P.
            J. Biol. Chem. (1994) 269:77-85
            Regulation of interleukin-8 expression in porcine alveolar
            macrophages by bacterial lipopolysaccharide.
#accession  A53096
#status      preliminary
#molecule_type mRNA
#residues    1-103 #label LIN
#cross-references GB:M86923; NID:g164520; PID:g164521
CLASSIFICATION #superfamily beta-thromboglobulin

SUMMARY       #length 103 #molecular-weight 11633 #checksum 8835
Query Match   84.5%; Score 82; DB 2; Length 103;
Best Local Similarity 66.7%; Pred. No. 3.31e-05;
Matches       8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 75 EVCLDPKREKWQ 86
|:| |||:|:|:|
QY 1 EICADPKOKWIO 12

RESULT 16
ENTRY      A44253 #type complete
TITLE      alveolar macrophage chemotactic factor-1 (AMCF-1)
ORGANISM   #formal_name Sus scrofa domestica #common_name domestic pig
DATE       30-Apr-1993 #sequence_revision 18-Nov-1994 #text_change
            23-Feb-1996
ACCESSIONS A44253
REFERENCE   Goodman, R.B.; Foster, D.C.; Mathewes, S.L.; Osborn, S.G.;
            Kulper, J.L.; Forstrom, J.W.; Martin, T.R.
            Biochemistry (1992) 31:10483-10490
            Molecular cloning of porcine alveolar macrophage-derived
            neutrophil chemotactic factors I and II; identification of
            porcine IL-8 and another interleukin-alpha protein.
#accession  A44253
#status      preliminary
#molecule_type mRNA
#residues    1-103 #label GOO
#experimental_source alveolar macrophage
#note        sequence extracted from NCBI backbone (NCBIN:117415,
            NCBIP:117416)
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY       #length 103 #molecular-weight 11677 #checksum 8904
Query Match   84.5%; Score 82; DB 2; Length 103;
Best Local Similarity 66.7%; Pred. No. 3.31e-05;
Matches       8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 75 EVCLDPKREKWQ 86
|:| |||:|:|:|
QY 1 EICADPKOKWIO 12

RESULT 17
ENTRY      I52322 #type complete
TITLE      macrophage inflammatory protein-1alpha - rat
ORGANISM   #formal_name Rattus norvegicus #common_name Norway rat
DATE       29-May-1998 #sequence_revision 29-May-1998 #text_change
            02-Jul-1998
ACCESSIONS I52322
REFERENCE   Shi, M.M.; Godleski, J.J.; Paulauskis, J.D.
            Biochem. Biophys. Res. Commun. (1995) 211:289-295
            Molecular cloning and posttranscriptional regulation of
            macrophage inflammatory protein-1 alpha in alveolar
            macrophages.
#accession  I52322
#status      preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues    1-92 #label RES
#cross-references EMBL:U22414; NID:g790632; PID:g790633
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY       #length 92 #molecular-weight 10335 #checksum 3184
Query Match   83.5%; Score 81; DB 2; Length 92;
Best Local Similarity 66.7%; Pred. No. 5.41e-05;
Matches       8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 71 QICADPKRETWQ 82
```

Oy 1 EICADPKOKWIO 12

RESULT 18

ENTRY JC5295 #type complete

TITLE monocytic chemotactic protein-2 - human

ORGANISM #formal_name Homo sapiens #common_name man

DATE 02-May-1997 #sequence_revision 18-Jul-1997 #text_change

ACCESSIONS JC5295

REFERENCE JC5295

#authors Van Collie, E.; Froyen, G.; Nomiyama, H.; Miura, R.; Fiten, P.; Van Aelst, I.; Van Damme, J.; Opdenakker, G.

#journal Biochem. Biophys. Res. Commun. (1997) 231:726-730

#title Human monocyte chemotactic protein-2: cDNA cloning and regulated expression of mRNA in mesenchymal cells.

#accession JC5295

#molecule_type mRNA

#residues 1-99 #label VAN

#cross-references GB:Y10802; NID:g1924937; PID:e294088; PID:g1924938

#experimental_source bone marrow

COMMENT This protein belongs to the beta-chemokine family which is one of the major HIV-suppressive factors. It plays roles in autoimmune processes such as multiple sclerosis and rheumatoid arthritis and in tumor biology, and contribute to the trafficking and recruitment of the responsive cells.

GENETICS

#gene mcp-2

CLASSIFICATION #superfamily macrophage inflammatory protein

FEATURE

1-23 #domain signal sequence #status predicted #label SIG\

24-99 #product monocyte chemotactic protein-2 #status predicted #label MAT

SUMMARY #length 99 #molecular-weight 11246 #checksum 6596

Query Match 82.5%; Score 80; DB 2; Length 99;

Best Local Similarity 58.3%; Pred. No. 8.82e-05;

Matches 7; Conservative 5; Mismatches 0; Indels 0; Gaps 0;

Db 73 EVCADPKRERWV 84

Oy 1 EICADPKOKWIO 12

RESULT 19

ENTRY I46871 #type complete

TITLE interleukin-8 - rabbit

ALTERNATE_NAMES neutrophil attractant/activation protein-1

ORGANISM #formal_name Oryctolagus cuniculus #common_name domestic rabbit

DATE 14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change

ACCESSIONS I46871; S13052

REFERENCE I46857

#authors Yoshimura, T.; Yuhki, N.

#journal J. Immunol. (1991) 146:3483-3488

#title Neutrophil attractant/activation protein-1 and monocyte chemoattractant protein-1 in rabbit: cDNA cloning and their expression in spleen cells.

#cross-references MUID:91225489

#accession I46871

#status preliminary; translated from GB/EMBL/DBJ

#molecule_type mRNA

#residues 1-101 #label YOS

#cross-references GB:M57439; NID:g165552; PID:g165553

REFERENCE S13052

#authors Beaudien, B.C.; Collins, P.D.; Jose, P.J.; Totty, N.F.; Hsuan, J.; Waterfield, M.D.; Williams, T.J.

#journal Biochem. J. (1990) 271:797-801

#title A novel neutrophil chemoattractant generated during an inflammatory reaction in the rabbit peritoneal cavity in vivo. Purification, partial amino acid sequence and

#cross-references MUID:91058518

#accession S13052

#molecule_type protein

#residues 23-33, 'X', 35, 'X', 37-46, 'X', 48-49, 'I', 51-53 #label BEA

CLASSIFICATION #superfamily beta-thromboglobulin

KEYWORDS cytokine

SUMMARY #length 101 #molecular-weight 11402 #checksum 1085

Query Match 81.4%; Score 79; DB 2; Length 101;

Best Local Similarity 66.7%; Pred. No. 1.43e-04;

Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 75 ELCIDPKRERWQ 86

Oy 1 EICADPKOKWIO 12

RESULT 20

ENTRY A30209 #type complete

TITLE PDGF-inducible JE glycoprotein precursor - mouse

ORGANISM #formal_name Mus musculus #common_name house mouse

DATE 01-Dec-1989 #sequence_revision 01-Dec-1989 #text_change

ACCESSIONS A30209; A44771; A30861

REFERENCE A30209

#authors Rollins, B.J.; Morrison, E.D.; Stiles, C.D.

#journal Proc. Natl. Acad. Sci. U.S.A. (1988) 85:3738-3742

#title Cloning and expression of JE, a gene inducible by platelet-derived growth factor and whose product has cytokine-like properties.

#cross-references MUID:88234501

#accession A30209

#molecule_type DNA

#residues 1-148 #label ROL

#cross-references GB:M19681; NID:g193486; PID:g387168; GB:M19682

REFERENCE A44771

#authors Kawahara, R.S.; Deuel, T.F.

#journal J. Biol. Chem. (1989) 264:679-682

#title Platelet-derived growth factor-inducible gene JE is a member of a family of small inducible genes related to platelet factor 4.

#accession A44771

#molecule_type mRNA

#residues 1-148 #label KA2

#cross-references GB:J04467; NID:g193488; PID:g387169

GENETICS

#gene JE

#introns 26/1; 65/2

CLASSIFICATION #superfamily macrophage inflammatory protein

KEYWORDS cytokine; glycoprotein

FEATURE 126

SUMMARY #binding-site carbohydrate (asn) (covalent) #status predicted

#length 148 #molecular-weight 16326 #checksum 5278

Query Match 80.4%; Score 78; DB 2; Length 148;

Best Local Similarity 66.7%; Pred. No. 2.32e-04;

Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 73 EVCADPKRERWQ 84

Oy 1 EICADPKOKWIO 12

RESULT 21

ENTRY A53497 #type complete

TITLE pre-B-cell growth-stimulating factor precursor - mouse

ORGANISM #formal_name Mus musculus #common_name house mouse

DATE 02-Jun-1994 #sequence_revision 02-Jun-1994 #text_change

ACCESSIONS A53497; I59582

REFERENCE A53497

#authors Nagasawa, T.; Kikutani, H.; Kishimoto, T.
#journal Proc. Natl. Acad. Sci. U.S.A. (1994) 91:2305-2309
#title Molecular cloning and structure of a pre-B-cell growth-stimulating factor.
#accession A53497
##status preliminary
##molecule-type mRNA
##residues 1-89 ##label NAG
##cross-references GB:D1072; NID:g413905; PID:d1005177; PID:g468457
REFERENCE
#authors Tashiro, K.; Tada, H.; Hellker, R.; Shirozu, M.; Nakano, T.; Honjo, T.
#journal Science (1993) 261:600-603
#title Signal sequence trap: a cloning strategy for secreted proteins and type I membrane proteins.
#cross-references MVID:93342488
#accession I59582
##status preliminary; translated from GB/EMBL/DBJ
##molecule-type mRNA
##residues 1-89 ##label RES
##cross-references GB:L12029; NID:g393179; PID:g393180
GENETICS
#gene SDF-1-alpha
#keywords cytokine
#summary #length 89 #molecular-weight 10032 #checksum 4622

Query Match 79.4%; Score 77; DB 2; Length 89;
Best Local Similarity 66.7%; Pred. No. 3.76e-04;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 69 QVCIDPKLKWIQ 80
OY 1 EICADPKOKWIQ 12

RESULT 22
ENTRY I53416 #type complete
TITLE Interleukin-8 homolog - mouse
ORGANISM #formal_name Mus sp. #common_name mouse
DATE 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change 28-Feb-1997
ACCESSIONS I53416
REFERENCE I53416
#authors Jiang, W.; Zhou, P.; Kahn, S.M.; Tomita, N.; Johnson, M.D.; Weinstein, I.B.
#journal Exp. Cell Res. (1994) 215:284-293
#title Molecular cloning of TPARI, a gene whose expression is repressed by the tumor promoter 12-O-tetradecanoylphorbol 13-acetate (TPA).
#cross-references MVID:95073497
#accession I53416
##status preliminary; translated from GB/EMBL/DBJ
##molecule-type mRNA
##residues 1-89 ##label RES
##cross-references GB:S74318; NID:g786393; PID:g786394
GENETICS
#gene TPARI
#summary #length 89 #molecular-weight 10032 #checksum 4622

Query Match 79.4%; Score 77; DB 2; Length 89;
Best Local Similarity 66.7%; Pred. No. 3.76e-04;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 69 QVCIDPKLKWIQ 80
OY 1 EICADPKOKWIQ 12

RESULT 23
ENTRY I81182 #type complete
TITLE cytokine - mouse
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change

28-Feb-1997
ACCESSIONS I81182
REFERENCE I59582
#authors Tashiro, K.; Tada, H.; Hellker, R.; Shirozu, M.; Nakano, T.; Honjo, T.
#journal Science (1993) 261:600-603
#title Signal sequence trap: a cloning strategy for secreted proteins and type I membrane proteins.
#cross-references MVID:93342488
#accession I81182
##status preliminary; translated from GB/EMBL/DBJ
##molecule-type mRNA
##residues 1-93 ##label RES
##cross-references GB:L12030; NID:g393181; PID:g393182
GENETICS
#gene SDF-1-beta
#summary #length 93 #molecular-weight 10561 #checksum 5309

Query Match 79.4%; Score 77; DB 2; Length 93;
Best Local Similarity 66.7%; Pred. No. 3.76e-04;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 69 QVCIDPKLKWIQ 80
OY 1 EICADPKOKWIQ 12

RESULT 24
ENTRY G01540 #type complete
TITLE cytokine SDF-1-beta - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 21-Dec-1996 #sequence_revision 06-Jun-1997 #text_change 17-Jul-1998
ACCESSIONS G01540
REFERENCE G07697
#authors Spottila, L.D.
#submission submitted to the EMBL Data Library, October 1994
#accession G01540
##molecule-type mRNA
##residues 1-93 ##label SPO
##cross-references EMBL:U16752; NID:g1272194; PID:g571508
#summary #length 93 #molecular-weight 10666 #checksum 6309

Query Match 79.4%; Score 77; DB 2; Length 93;
Best Local Similarity 66.7%; Pred. No. 3.76e-04;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 69 QVCIDPKLKWIQ 80
OY 1 EICADPKOKWIQ 12

RESULT 25
ENTRY A32393 #type complete
TITLE macrophage inflammatory protein-1-alpha precursor - mouse
ALTERNATE_NAMES heparin-binding chemotaxis protein; l2g25b protein; SCI/MIP-1a; SIS alpha; stem cell inhibitor/macrophage inflammatory protein 1-alpha; T-cell activation protein alpha; TX5
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 08-Sep-1997
ACCESSIONS S11685; A32393; S04533; A53885; A30552; PS0303; A27596; I56104
REFERENCE S11685
#authors Grove, M.; Lowe, S.; Graham, G.; Pragnell, I.; Plumb, M.
#journal Nucleic Acids Res. (1990) 18:5561
#title Sequence of the murine haemopoietic stem cell inhibitor/macrophage inflammatory protein 1-alpha gene.
#cross-references MVID:91016858
#accession S11685
##molecule-type DNA


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##residues      1-92 ##label GRO
##cross-references EMBL:X53372; NID:954062; PID:9297531
#note           the authors' translation of the nucleotide sequence
                differs at several positions from the sequence given
REFERENCE
#authors        A32393
                Kwon, B.S.; Weissman, S.M.
#journal        Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1963-1967
#title          cDNA sequence of two inducible T-cell genes.
#cross-references M0ID:89184547
#accession      A32393
#molecule_type mRNA
#residues       1-92 ##label KMO
#cross-references GB:J04491; NID:g201524; PID:g201525
#accession      S04533
#authors        Davatelis, G.; Tekamp-Olson, P.; Wolpe, S.D.; Hermesen, K.;
                Luedke, C.; Gallegos, C.; Colt, D.; Merryweather, J.;
                Cerami, A.
#journal        J. Exp. Med. (1988) 167:1939-1944
#title          Cloning and characterization of a cDNA for murine macrophage
                inflammatory protein (MIP), a novel monokine with
                inflammatory and chemokinetic properties.
#cross-references M0ID:88258380
#accession      S04533
#molecule_type mRNA
#residues       1-48,'E',50-90,'I',92 ##label DA2
#cross-references EMBL:X12531
#note           the authors translated the codon GAG for residue 49 as
                Asp and ATT for residue 91 as Asn
                the sequence has been corrected in reference A53885
REFERENCE
#note           A53885
                Davatelis, G.; Tekamp-Olson, P.; Wolpe, S.D.; Hermesen, K.;
                Luedke, C.; Gallegos, C.; Colt, D.; Merryweather, J.;
                Cerami, A.
                J. Exp. Med. (1989) 170:2189.
#journal        erratum
#contents       A53885
#accession      A53885
#molecule_type mRNA
#residues       1-92 ##label DAV
#cross-references EMBL:X12531; NID:953122; PID:953123
REFERENCE
#authors        Brown, K.D.; Zurawski, S.M.; Mosmann, T.R.; Zurawski, G.
#journal        J. Immunol. (1989) 142:679-687
#title          A family of small inducible proteins secreted by leukocytes
                are members of a new superfamily that includes leukocyte
                and fibroblast-derived inflammatory agents, growth factors,
                and indicators of various activation processes.
#cross-references M0ID:89093958
#accession      A30552
#molecule_type mRNA
#residues       1-21,'L',23-61,'A',63-92 ##label BRO
#cross-references GB:M23447; NID:9533240; PID:9533241
REFERENCE
#authors        Sherry, B.; Tekamp-Olson, P.; Gallegos, C.; Bauer, D.;
                Davatelis, G.; Wolpe, S.D.; Mastatz, F.; Colt, D.; Cerami,
                A.
#journal        J. Exp. Med. (1988) 168:2251-2259
#title          Resolution of the two components of macrophage inflammatory
                protein 1, and cloning and characterization of one of those
                components, macrophage inflammatory protein 1 beta.
#cross-references M0ID:89067830
#accession      PS0303
#molecule_type mRNA
#residues       24-33,'XX',36-54 ##label SHE
#accession      A27596
#authors        Wolpe, S.D.; Davatelis, G.; Sherry, B.; Beutler, B.; Hesse,
                D.G.; Nguyen, H.T.; Moldawer, L.L.; Nathan, C.F.; Lowry,
                S.F.; Cerami, A.
#journal        J. Exp. Med. (1988) 167:570-581
#title          Macrophages secrete a novel heparin-binding protein with
                inflammatory and neutrophil chemokinetic properties.
#cross-references M0ID:88154745
#accession      A27596
#molecule_type protein

##residues      24-33,'XX',36-42 ##label NOL
##note           26-Met, 30-Pro, and 39-Thr were also found
REFERENCE
#authors        Wlender, U.; Yang, Z.; van Deventer, S.; Manogue, K.R.;
                Sherry, B.; Cerami, A.
#journal        J. Immunol. (1991) 146:4031-4040
#title          Genomic structure of murine macrophage inflammatory
                protein-1-alpha and conservation of potential regulatory
                sequences with a human homolog, ID78.
#cross-references M0ID:91237116
#accession      I56104
#status         preliminary; translated from GB/EMBL/DBJ
#molecule_type DNA
#residues       1-92 ##label RES
#cross-references GB:M73061; NID:g199694; PID:g199695
COMMENT         This protein is a monokine.
GENETICS
#introns        23/3; 26/1; 63/2
#CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS         heparin binding
FEATURE
1-23
24-92
SUMMARY
Query Match      76.3%; Score 74; DB 2; Length 92;
Best local Similarity 58.3%; Pred. No. 1,57e-03;
Matches          7; Conservative 4; Mismatches 1; Indels 0; Gaps 0;

Db              71 QICADSKETWVQ 82
               :||||:|:|:|
QY              1 EICADPKKWKIQ 12

RESULT          26
ENTRY           S07723 #type complete
TITLE           Immediate-early serum-responsive protein JE - rat
ALTERNATE_NAMES monocyte chemoattractant protein-1
ORGANISM        #formal name Rattus norvegicus #common name Norway rat
DATE            29-Jan-1993 #sequence_revision 29-Jan-1993 #text_change
               08-Sep-1997
ACCESSIONS      S07723; JN0128
REFERENCE
#authors        Timmers, H.T.M.; Pronk, G.J.; Bos, J.L.; van der Eb, A.J.
#journal        Nucleic Acids Res. (1990) 18:23-34
#title          Analysis of the rat JE gene promoter identifies an AP-1
                binding site essential for basal expression but not for TPA
                induction.
#cross-references M0ID:90174947
#accession      S07723
#molecule_type DNA
#residues       1-148 ##label TIM
#cross-references EMBL:X17053; NID:955530; PID:955531
REFERENCE
#authors        Yoshimura, T.; Takeya, M.; Takahashi, K.
#journal        Biochem. Biophys. Res. Commun. (1991) 174:504-509
#title          Molecular cloning of rat monocyte chemoattractant protein-1
                (MCP-1) and its expression in rat spleen cells and tumor
                cell lines.
#cross-references M0ID:91128376
#accession      JN0128
#molecule_type mRNA
#residues       1-148 ##label YOS
#cross-references GB:M57441; NID:g205333; PID:g205334
#experimental_source spleen cells
#note           The authors translated the codon GAA for residue 62 as
                Iys and GCT for residue 63 as Ieu
GENETICS
#introns        26/1; 65/2
#CLASSIFICATION #superfamily macrophage inflammatory protein
FEATURE
1-23
domain signal sequence #status predicted #label SIG\

```

24-148 #product immediate-early serum-responsive protein JE
SUMMARY #status predicted #label MAT #checks 4876
#length 148 #molecular-weight 16460
Query Match 76.3%; Score 74; DB 2; Length 148;
Best Local Similarity 66.7%; Pred. No. 1.57e-03;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
Db 73 EICADPNKEWQ 84
1 EICADPNKEWQ 12
1 EICADPNKEWQ 12
RESULT 27
ENTRY A37034 #type complete
TITLE Interleukin-8 precursor - human
ALTERNATE_NAMES beta-thromboglobulin-like protein; fibroblast-derived neutrophil-activating factor alpha; lung carcinoma-derived chemotaxin; lymphocyte-derived neutrophil-activating factor; monocyte-derived neutrophil chemotactic factor; monocyte-derived neutrophil-activating factor
ORGANISM #formal_name Homo sapiens #common_name man
DATE 08-Dec-1992 #sequence_revision 08-Dec-1992 #text_change 13-Sep-1998
ACCESSIONS A37034: J10041; A32791: S37634; P10107: A28598; A27488; A39960; A60401; A60591; S15821; S04216; A60567; A60847; S12417; S03975; I54560; I55992; I37902; S67519
REFERENCE A37034
#authors Mukaido, N.; Shiroo, M.; Matsushima, K.
#journal J. Immunol. (1989) 143:1366-1371
#title Genomic structure of the human monocyte-derived neutrophil chemotactic factor IL-8.
#cross-references MUID:89309626
#accession A37034
#molecule_type DNA
#residues 1-99 #label MUK
#cross-references GB:M28130; NID:9186367; PID:9186368
#note the authors failed to translate the last thirty-six nucleotides of the second exon
REFERENCE J10041
#authors Matsushima, K.; Morishita, K.; Yoshimura, T.; Lavu, S.; Kobayashi, Y.; Lew, W.; Appella, E.; Kung, H.F.; Leonard, E.J.; Oppenheim, J.J.
#journal J. Exp. Med. (1988) 167:1883-1893
#title Molecular cloning of a human monocyte-derived neutrophil chemotactic factor (MDNCF) and the induction of MDNCF mRNA by interleukin 1 and tumor necrosis factor.
#cross-references MUID:88258376
#accession J10041
#molecule_type mRNA
#residues 1-99 #label MA1
#cross-references EMBL:Y00787; NID:934518; PID:934519
#note the sequence shows similarity to several platelet-derived factors, a v-src-induced protein, a growth-regulated gene product (gro), and an IFN-gamma-inducible protein
REFERENCE A32791
#authors Kowalski, J.; Denhardt, D.T.
#journal Mol. Cell. Biol. (1989) 9:1946-1957
#title Regulation of the mRNA for monocyte-derived neutrophil-activating peptide in differentiating HL60 promyelocytes.
#cross-references MUID:89313739
#accession A32791
#molecule_type mRNA
#residues 1-99 #label KOM
#cross-references GB:M26383; NID:9188627; PID:9188628
REFERENCE S37634
#authors King, C.H.; Gordon, G.S.; Konieczkowski, M.; Sedot, J.R.
#submission submitted to the EMBL Data Library, February 1992
#accession S37634
#status preliminary
#molecule_type mRNA

#residues 1-97 #label KIN
#cross-references EMBL:211666; NID:933956; PID:933959
REFERENCE P10107
#authors Suzuki, K.; Miyasaka, H.; Ota, H.; Yamakawa, Y.; Tagawa, M.; Kuramoto, A.; Mizuno, S.
#journal J. Exp. Med. (1989) 169:1895-1901
#title Purification and partial primary sequence of a chemotactic protein for polymorphonuclear leukocytes derived from human lung giant cell carcinoma LU65C cells.
#cross-references MUID:89279141
#accession P10107
#molecule_type protein
#residues 23-32, 'X', '35', 'X', '37-52', 'V', '54' #label SUZ
#experimental_source lung giant cell carcinoma LU65C
REFERENCE A28598
#authors Gregory, H.; Young, J.; Schroeder, J.M.; Mrowietz, U.; Christophers, E.
#journal Biochem. Biophys. Res. Commun. (1988) 151:883-890
#title Structure determination of a human lymphocyte derived neutrophil activating peptide (LXNP).
#cross-references MUID:88162914
#accession A28598
#molecule_type protein
#residues 28-99 #label GRE
REFERENCE A27488
#authors Walz, A.; Peveri, P.; Aschauer, H.; Baggiolini, M.
#journal Biochem. Biophys. Res. Commun. (1987) 149:755-761
#title Purification and amino acid sequencing of NAF, a novel neutrophil-activating factor produced by monocytes.
#cross-references MUID:88106502
#accession A27488
#molecule_type protein
#residues 28-59 #label WAL
REFERENCE A39960
#authors Yoshimura, T.; Matsushima, K.; Tanaka, S.; Robinson, E.A.; Appella, E.; Oppenheim, J.J.; Leonard, E.J.
#journal Proc. Natl. Acad. Sci. U.S.A. (1987) 84:9233-9237
#title Purification of a human monocyte-derived neutrophil chemotactic factor that has peptide sequence similarity to other host defense cytokines.
#cross-references MUID:88097462
#accession A39960
#molecule_type protein
#residues 28-69 #label YOS
REFERENCE A60401
#authors Schroeder, J.M.; Sticherling, M.; Henneicke, H.H.; Preissner, W.C.; Christophers, E.
#journal J. Immunol. (1990) 144:2223-2232
#title IL-1alpha or tumor necrosis factor-alpha stimulate release of three NAP-1/IL-8-related neutrophil chemotactic proteins in human dermal fibroblasts.
#cross-references MUID:90187866
#accession A60401
#molecule_type protein
#residues 23-32 #label SCH
#experimental_source dermal fibroblasts
#note a minor component of this material (15%) includes an additional two amino acids at the amino end
REFERENCE A60591
#authors Van Damme, J.; Decock, B.; Conings, R.; Lenaerts, J.P.; Opdenacker, G.; Billiau, A.
#journal Eur. J. Immunol. (1989) 19:1189-1194
#title The chemotactic activity for granulocytes produced by virally infected fibroblasts is identical to monocyte-derived interleukin 8.
#accession A60591
#molecule_type protein
#residues 23-33, 'X', '35', 'X', '37-42' #label VAN
REFERENCE S15827
#authors Nakagawa, H.; Hatakeyama, S.; Ikesue, A.; Miyai, H.
#journal FEBS Lett. (1991) 283:412-414
#title Generation of interleukin-8 by plasmid from AVIPR-interleukin-8, the human fibroblast-derived

neutrophil chemotactic factor.
#cross-references MUID:91243843

#accession S15827

#molecule-type protein
#residues 23-33, 'X', 35, 'X', 37-47 #label FEB

REFERENCE S04216
#authors van Damme, J.; van Beeumen, J.; Conings, R.; Decock, B.;

#journal Billiau, A.
Eur. J. Biochem. (1989) 181:337-344

#title Purification of granulocyte chemotactic peptide/interleukin-8 reveals N-terminal sequence heterogeneity similar to that of beta-thromboglobulin.
#cross-references MUID:89231715

#accession S04216

#molecule-type protein
#residues 21-67 #label VA2

REFERENCE A0567
#authors Yoshimura, T.; Robinson, E.A.; Appella, E.; Matsushima, K.;

#journal Showalter, S.D.; Skeel, A.; Leonard, E.J.
Mol. Immunol. (1989) 26:87-93

#title Three forms of monocyte-derived neutrophil chemotactic factor (MDNCF) distinguished by different lengths of the amino-terminal sequence.
#accession A0567

#molecule-type protein

#residues 21-33, 'X', 35, 'X', 37-47 #label Y02
#note the forms starting from positions 21, 23, and 28 represented 8%, 47%, and 45%, respectively, of total interleukin-8

REFERENCE A60847

#authors Van Damme, J.; Van Beeumen, J.; Opdenakker, G.; Billiau, A.
J. Exp. Med. (1988) 167:1364-1376

#journal A novel, NH-2-terminal sequence-characterized human monokine possessing neutrophil chemotactic, skin-reactive, and granulocytosis-promoting activity.
#accession A60847

#molecule-type protein

#residues 28-47 #label VA3

REFERENCE S15417
#authors Car, B.D.; Baggiolini, M.; Walz, A.
Biochem. J. (1991) 275:581-584

#journal Formation of neutrophil-activating peptide 2 from platelet-derived connective-tissue-activating peptide III by different tissue proteinases.
#cross-references MUID:91248085

#accession S15417

#status preliminary

#molecule-type protein
#residues 28-99 #label CAR

REFERENCE S03975
#authors Golds, E.E.; Mason, P.; Nyirkos, P.
Biochem. J. (1989) 259:585-588

#journal Inflammatory cytokines induce synthesis and secretion of gro protein and a neutrophil chemotactic factor but not beta-2-microglobulin in human synovial cells and fibroblasts.
#cross-references MUID:89246368

#accession S03975

#molecule-type protein
#residues 23-46 #label GOL

REFERENCE S15450

#authors Hotta, K.; Hayashi, K.; Ishikawa, J.; Tagawa, M.; Hashimoto, K.; Mizuno, S.; Suzuki, K.
Immunol. Lett. (1990) 24:165-170

#journal Coding region structure of interleukin-8 gene of human lung giant cell carcinoma U65C cells that produce LCT/interleukin-8: homogeneity in interleukin-8 genes.
#cross-references MUID:90346419

Note: remainder of annotations omitted.

Query Match 75.3%; Score 73; DB 2; Length 99;
Best Local Similarity 58.3%; Pred. No. 2.51e-03;

Matches 7; Conservative 4; Mismatches 1; Indels 0; Gaps 0;

Db 75 ELCDPKENWVQ 86

Oy 1 EICADPKOKWIO 12

RESULT 28

ENTRY I48148 #type complete

TITLE Neutrophil attractant protein-1 - guinea pig

ORGANISM #formal name Cavia porcellus #common name guinea pig

DATE 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 23-Feb-1997

ACCESSIONS I48148

REFERENCE I48148 Yoshimura, T.; Johnson, D.G.
J. Immunol. (1993) 151:6225-6236

#journal CDNA cloning and expression of guinea pig neutrophil attractant protein-1 (NAP-1): NAP-1 is highly conserved in guinea pig.
#cross-references MUID:94065176

#accession I48148 preliminary; translated from GB/EMBL/DBJ

#status preliminary; translated from GB/EMBL/DBJ

#molecule-type DNA

#residues 1-101 #label RES

#cross-references GB:I04986; NID:9459764; PID:9459765

GENETICS #gene NAP-1

CLASSIFICATION #superfamily beta-thromboglobulin

SUMMARY #length 101 #molecule-weight 11414 #checksum 2363

Query Match 75.3%; Score 73; DB 2; Length 101;

Best Local Similarity 58.3%; Pred. No. 2.51e-03;

Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 75 QUCDPRKKWVQ 86

Oy 1 EICADPKOKWIO 12

RESULT 29

ENTRY A46539 #type complete

TITLE monocyte chemottractant cytokine RANTES precursor - mouse

ALTERNATE_NAMES Murantes

ORGANISM #formal name Mus musculus #common name house mouse

DATE 18-Jun-1993 #sequence_revision 16-Aug-1996 #text_change 11-Sep-1998

ACCESSIONS I48875; A46539; I48654; I56970

REFERENCE I48875 Danoff, T.M.; Lallely, P.A.; Chang, Y.S.; Heeger, P.S.; Neilson, E.G.
J. Immunol. (1994) 152:1182-1189

#journal Cloning, genomic organization, and chromosomal localization of the Scya5 gene encoding the murine chemokine RANTES.
#cross-references MUID:94132613

#accession I48875 preliminary; translated from GB/EMBL/DBJ

#status preliminary; translated from GB/EMBL/DBJ

#molecule-type DNA

#residues 1-91 #label DAN

#cross-references EMBL:002298; NID:9460090; PID:9460091

REFERENCE A46539

#authors Schall, T.J.; Simpson, N.J.; Mak, J.Y.
Eur. J. Immunol. (1992) 22:1477-1481

#journal Molecular cloning and expression of the murine RANTES cytokine: structural and functional conservation between mouse and man.
#cross-references MUID:92289805

#accession A46539

#molecule-type mRNA

#residues 1-18, 'A', 20-91 #label SCH

#experimental_source macrophage cell line P05-1.8

#note sequence extracted from NCBI backbone (NCBI:106768, NCBI:106770)

REFERENCE

#authors 148654
Shin, H.S.; Drysdale, B.E.; Shin, M.L.; Noble, P.W.; Fisher,
S.N.; Paznekas, W.A.
#journal Mol. Cell. Biol. (1994) 14:2914-2925
#title Definition of a lipopolysaccharide-responsive element in the
5'-flanking regions of MuRantes and crg-2.
#cross-references MUID:94217689

#accession 148654
#status translation not shown; translated from GB/EMBL/DBJ

#molecule_type DNA
#residues 1-91 #label SHI

#cross-references EMBL:X70675; NID:g475205; PID:g475206

REFERENCE

#authors 156970
Neilson, E.G.; Krensky, A.
#journal Kidney Int. (1992) 41:220-225
#title Isolation and characterization of cDNA from renal tubular
epithelium encoding murine Rantes: A small interferon from
the SCV superfamily.
#cross-references MUID:92277990

#accession 156970

#status translated from GB/EMBL/DBJ

#molecule_type mRNA
#residues 1-40, 'E', '42-91 #label NEI

#cross-references GB:M77747; NID:g200649; PID:g200650
COMMENT This chemottractant for monocytes but not neutrophils is an
immediate-early response protein to LPS stimulation.

GENETICS

#introns 26/1; 63/2

CLASSIFICATION #superfamily macrophage inflammatory protein
chemotaxis; cytokine; immediate-early protein; inflammation

KEYWORDS

FEATURE 1-23 #domain signal sequence #status predicted #label SIG\

24-91 #product monocyte chemottractant cytokine RANTES
#status predicted #label MAT

#length 91 #molecular-weight 10071 #checksum 3010

SUMMARY

Query Match 74.2%; Score 72; DB 1; Length 91;

Best Local Similarity 50.0%; Pred. No. 4.01e-03; Indels 0; Gaps 0;

Matches 6; Conservative 4; Mismatches 2;

Db 71 QVCANPEKKNVQ 82

OY 1 EICADPKQKNIQ 12

RESULT 30

ENTRY C60407 #type fragment
TITLE monocyte adherence-induced protein 5 beta - human (fragment)

ORGANISM #formal_name Homo sapiens #common_name man
DATE 06-Nov-1992 #sequence_revision 06-Nov-1992 #text_change
03-May-1996

ACCESSIONS

REFERENCE C60407
A60407
Sporn, S.A.; Eierman, D.F.; Johnson, C.E.; Morris, J.;

#authors Martin, G.; Ladner, M.; Haskill, S.
J. Immunol. (1990) 144:4434-4441. S.

#journal Monocyte adherence results in selective induction of novel
genes sharing homology with mediators of inflammation and
tissue repair.

#title J. Immunol. (1990) 144:4434-4441. S.

#cross-references MUID:90257367

#accession C60407

#status preliminary; not compared with conceptual translation

#molecule_type mRNA
#residues 1-50 #label SPO

CLASSIFICATION #superfamily macrophage inflammatory protein

SUMMARY #length 50 #checksum 9927

Query Match 72.2%; Score 70; DB 2; Length 50;

Best Local Similarity 50.0%; Pred. No. 1.01e-02;

Matches 6; Conservative 4; Mismatches 2; Indels 0; Gaps 0;

Db 30 QVCADPSESQVQ 41

OY 1 EICADPKQKNIQ 12

Search completed: Thu Apr 1 07:43:15 1999
Job time : 24 secs.

MUSE (TM)

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Maspar_pp protein - protein database search, using Smith-Waterman algorithm
Run on: Thu Apr 1 07:41:37 1999; Maspar time 2.31 Seconds
139.459 Million cell updates/sec
Tabular output not generated.

Title: >US-08-927-939-13
Description: (1-12) from US08927939.pep
Perfect Score: 97
Sequence: 1 EICADPKOKWIO 12
Scoring table: PAM 150
Gap 15

Searched: 74019 segs, 26840295 residues
Post-Processing: Minimum Match 0%
Listing first 100 summaries

Database: swiss-prot36
1:swissprot

Statistics: Mean 25.540; Variance 32.357; scale 0.789

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description	Pred. No.
1	95	97.9	99	1	MCPI_HUMAN MONOCYTE CHEMOTACTIC P	1.15e-09
2	95	97.9	101	1	MCPI_CANFA MONOCYTE CHEMOTACTIC P	1.15e-09
3	94	96.9	99	1	MCPI_PIG MONOCYTE CHEMOTACTIC P	2.08e-08
4	92	94.8	99	1	MCPI_BOVIN MONOCYTE CHEMOTACTIC P	6.73e-09
5	91	93.8	98	1	MCPI_HUMAN MONOCYTE CHEMOTACTIC P	1.21e-08
6	90	92.8	99	1	MCPI_HUMAN MONOCYTE CHEMOTACTIC P	2.16e-08
7	89	91.8	125	1	MCPI_RABIT MONOCYTE CHEMOTACTIC P	3.85e-08
8	88	90.7	97	1	EOTAXIN PRECURSOR (EOS 6.85e-08	6.85e-08
9	88	90.7	97	1	EOTAXIN PRECURSOR (EOS 6.85e-08	6.85e-08
10	88	90.7	99	1	MCPI_HUMAN MONOCYTE CHEMOTACTIC P	6.85e-08
11	87	89.7	97	1	EOTAXIN PRECURSOR (EOS 1.22e-07	1.22e-07
12	86	88.7	99	1	MCPI_PIG MONOCYTE CHEMOTACTIC P	2.16e-07
13	86	88.7	120	1	MCPI_CANFA MONOCYTE CHEMOTACTIC P	2.16e-07
14	84	86.6	104	1	MCPI_MOUSE MONOCYTE CHEMOTACTIC P	6.72e-07
15	82	84.5	96	1	EOTAXIN PRECURSOR (EOS 2.07e-06	2.07e-06
16	82	84.5	101	1	IL8_CANFA INTERLEUKIN-8 PRECURSO	2.07e-06
17	82	84.5	101	1	IL8_SHEEP INTERLEUKIN-8 PRECURSO	2.07e-06
18	82	84.5	103	1	IL8_PIG INTERLEUKIN-8 PRECURSO	2.07e-06
19	81	83.5	92	1	MILK_RAT MACROPHAGE INFLAMMATOR	3.63e-06
20	80	82.5	74	1	MCPI_BOVIN MONOCYTE CHEMOTACTIC P	6.33e-06
21	80	82.5	99	1	MCPI_HUMAN MONOCYTE CHEMOTACTIC P	6.33e-06
22	79	81.4	89	1	MIP4_HUMAN MACROPHAGE INFLAMMATOR	1.10e-05
23	79	81.4	101	1	IL8_BOVIN INTERLEUKIN-8 PRECURSO	1.10e-05

24	79	81.4	101	1	IL8_RABIT INTERLEUKIN-8 PRECURSO	1.10e-05
25	78	80.4	148	1	MCPI_MOUSE MONOCYTE CHEMOTACTIC P	1.91e-05
26	77	79.4	89	1	SDF1_MOUSE STROMAL CELL-DERIVED F	3.30e-05
27	77	79.4	93	1	SDF1_HUMAN STROMAL CELL-DERIVED F	3.30e-05
28	74	76.3	92	1	MILK_MOUSE MACROPHAGE INFLAMMATOR	1.67e-04
29	74	76.3	148	1	MCPI_RAT MONOCYTE CHEMOTACTIC P	1.67e-04
30	73	75.3	97	1	MCPI_MOUSE MONOCYTE CHEMOTACTIC P	2.86e-04
31	73	75.3	99	1	IL8_HUMAN INTERLEUKIN-8 PRECURSO	2.86e-04
32	72	74.2	101	1	IL8_CANFA INTERLEUKIN-8 PRECURSO	2.86e-04
33	72	74.2	91	1	SISD_MOUSE T-CELL SPECIFIC RANTES	4.86e-04
34	72	74.2	92	1	SISD_RAT T-CELL SPECIFIC RANTES	4.86e-04
35	70	72.2	92	1	MILK_HUMAN MACROPHAGE INFLAMMATOR	1.39e-03
36	70	72.2	92	1	MILK_HUMAN MACROPHAGE INFLAMMATOR	1.39e-03
37	70	72.2	93	1	MILK_HUMAN TONSILLAR LYMPHOCYTE L	1.39e-03
38	70	72.2	96	1	MACROPHAGE INFLAMMATOR	1.39e-03
39	69	71.1	101	1	IL8_CERTO INTERLEUKIN-8 PRECURSO	2.35e-03
40	69	71.1	101	1	IL8_MACNU INTERLEUKIN-8 PRECURSO	2.35e-03
41	68	70.1	93	1	CCCL_HUMAN CHEMOKINE CC-1 PRECURS	3.93e-03
42	68	70.1	109	1	CCC3_HUMAN CHEMOKINE CC-3 PRECURS	3.93e-03
43	67	69.1	90	1	MILB_CHICK MACROPHAGE INFLAMMATOR	6.57e-03
44	67	69.1	92	1	MILB_RABIT MACROPHAGE INFLAMMATOR	6.57e-03
45	67	69.1	114	1	LTN_RAT LYMPHOTACTIN PRECURSOR	6.57e-03
46	66	68.0	50	1	SISD_PIG T-CELL SPECIFIC RANTES	1.09e-02
47	66	68.0	91	1	SISD_CANVO T-CELL SPECIFIC RANTES	1.09e-02
48	66	68.0	91	1	SISD_HUMAN T-CELL SPECIFIC RANTES	1.09e-02
49	66	68.0	114	1	LTN_MOUSE LYMPHOTACTIN PRECURSOR	1.09e-02
50	63	64.9	92	1	MILB_RAT MACROPHAGE INFLAMMATOR	4.91e-02
51	61	62.9	103	1	EMFL_CHICK EMBRYO FIBROBLAST PROT	1.31e-01
52	60	61.9	92	1	MILB_MOUSE MACROPHAGE INFLAMMATOR	2.12e-01
53	60	61.9	117	1	YJ9K_YEAST HYPOHETICAL 13.2 KD P	2.12e-01
54	59	60.8	114	1	LTN_HUMAN LYMPHOTACTIN PRECURSOR	3.42e-01
55	59	60.8	694	1	PNKL_NPVAC POTASSIUM POLYNUCLEOTID	3.42e-01
56	58	59.8	460	1	HYPOHETICAL PROTEIN H	5.48e-01
57	57	58.8	98	1	MILB_HUMAN MACROPHAGE INFLAMMATOR	8.75e-01
58	57	58.8	116	1	C10_MOUSE C10 PROTEIN PRECURSOR	8.75e-01
59	57	58.8	176	1	YJDP_ECOLI HYPOHETICAL 20.8 KD P	8.75e-01
60	56	57.7	731	1	BGAL_MALDO BETA-GALACTOSIDASE PRE	1.39e+00
61	55	56.7	378	1	DHA_BACSU ALANINE DEHYDROGENASE	2.19e+00
62	54	55.7	122	1	MILG_MOUSE MACROPHAGE INFLAMMATOR	3.44e+00
63	53	54.6	37	1	RL36_VIECH 50S RIBOSOMAL PROTEIN	5.37e+00
64	53	54.6	37	1	RL36_SVNP6 50S RIBOSOMAL PROTEIN	5.37e+00
65	53	54.6	140	1	VHM3_CAVPK PROTEIN HM3	5.37e+00
66	53	54.6	281	1	CD37_MOUSE LEUKOCYTE ANTIGEN CD37	5.37e+00
67	53	54.6	828	1	BGAL_BRAOL BETA-GALACTOSIDASE PRE	5.37e+00
68	52	53.6	349	1	SAPD_HAELN PEPTIDE TRANSPORT SYST	8.32e+00
69	52	53.6	831	1	NAPA_RHOSH PERIPLASMIC NITRATE RE	8.32e+00
70	52	53.6	841	1	CSM_DROHE PROTEIN-TYROSINE PHOSP	8.32e+00
71	52	53.6	1871	1	SEX_HUMAN TRANSFERMRANE PROTEIN	8.32e+00
72	52	53.6	2179	1	POLG_HRY14 GENOME POLYPROTEIN (CO	8.32e+00
73	52	53.6	37	1	RK36_SPTOL CHLOROPLAST 50S RIBOSO	1.28e+01
74	51	52.6	37	1	RK36_PEA CHLOROPLAST 50S RIBOSO	1.28e+01
75	51	52.6	37	1	RK36_ORYSA CHLOROPLAST 50S RIBOSO	1.28e+01
76	51	52.6	37	1	RL36_MYCTU 50S RIBOSOMAL PROTEIN	1.28e+01
77	51	52.6	92	1	SISF_MOUSE SMALL INDUCTIBLE CYTOKI	1.28e+01
78	51	52.6	94	1	TARC_HUMAN THYMOS AND ACTIVATION	1.28e+01
79	51	52.6	166	1	YJDP_HAELN HYPOHETICAL PROTEIN H	1.28e+01
80	51	52.6	532	1	INVA_YEAST INVERTASE 2 PRECURSOR	1.28e+01
81	51	52.6	532	1	INVA_YEAST INVERTASE 2 PRECURSOR	1.28e+01
82	51	52.6	618	1	XYA2_BACST BETA-XYLIDASE PRECUR	1.28e+01
83	51	52.6	871	1	PCL_MOUSE PLASMA-CELL MEMBRANE G	1.28e+01
84	51	52.6	915	1	PAC6_MOUSE SERINE PROTEASE PC6 PR	1.28e+01
85	51	52.6	915	1	PAC6_RAT SERINE PROTEASE PC6 PR	1.28e+01
86	50	51.5	281	1	CD37_HUMAN LEUKOCYTE ANTIGEN CD37	1.96e+01
87	50	51.5	379	1	YJGB_PSAE HYPOHETICAL 41.7 KD P	1.96e+01
88	50	51.5	466	1	YD45_SCHPO HYPOHETICAL 50.5 KD P	1.96e+01
89	50	51.5	467	1	YJ3H_YEAST HYPOHETICAL 54.5 KD P	1.96e+01
90	50	51.5	505	1	C762_SOLME CYTOCHROME P450 LXXVIA	1.96e+01
91	50	51.5	641	1	E2BE_HUMAN TRANSLATION INITIATION	1.96e+01
92	50	51.5	659	1	NRTC_SVNP7 TRANSLATION TRANSPORT ATP-	1.96e+01
93	50	51.5	721	1	E2BE_RABIT TRANSLATION INITIATION	1.96e+01
94	50	51.5	1675	1	CLH1_HUMAN CLATHRIN HEAVY CHAIN 1	1.96e+01
95	50	51.5	1675	1	CLH1_BOVIN CLATHRIN HEAVY CHAIN.	1.96e+01
96	50	51.5	1675	1	CLH_RAT CLATHRIN HEAVY CHAIN.	1.96e+01

97 49 50.5 37 1 RK36_PORPU CHLOROPLAST 50S RIBOSO 2.98e+01
 98 49 50.5 37 1 RL36_PAEIN 50S RIBOSOMAL PROTEIN 2.98e+01
 99 49 50.5 188 1 DHML_PARDE METHYLAMINE DEHYDROGEN 2.98e+01
 100 49 50.5 1180 1 EX5B_ECOLI EXODEOXYRIBONUCLEASE V 2.98e+01

ALIGNMENTS

RESULT 1
 ID MCP1_HUMAN STANDARD: PRT: 99 AA.
 AC P13500;
 DT 01-JAN-1990 (REL. 13, CREATED)
 DT 01-JAN-1990 (REL. 13, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE CHEMOTACTIC
 DE AND ACTIVATING FACTOR) (MCAF) (MONOCYTE SECRETORY PROTEIN 1)
 DE (MONOCYTE CHEMOTACTIC PROTEIN 1) (HC11) (SMALL INDUCIBLE CYTOKINE
 DE A2).
 GN SCV22 OR MCP1.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUETHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 89165862.
 RA FURUTANI Y., NOMURA H., NOTAKE M., OYAMADA Y., FUKUI T., YAMADA M.,
 RA LARSEN C.G., OPPENHEIM J.J., MATSUSHITA K.;
 RA BIOCHEM. BIOPHYS. RES. COMMUN. 159:249-255(1989).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 90097880.
 RA ROLLINS B.J., STIER P., ERNST T., WONG G.G.;
 RA MOL. CELL. BIOL. 9:4687-4693(1989).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 89153605.
 RA YOSHIMURA T., YUKIKI N., MOORE S.K., APPELLA E., LEMMAN M.I.,
 RA LEONARD E.J.;
 RA FEBS LETT. 244:487-493(1989).
 RN [4]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 90290466.
 RA SHY Y.J., LI Y.S., KOLATTURUDY P.E.;
 RA BIOCHEM. BIOPHYS. RES. COMMUN. 169:346-351(1990).
 RN [5]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 91207938.
 RA CHANG H.C., HSU F., FREEMAN G.J., GRIFFIN J.D., REINHERZ E.L.;
 RA INT. IMMUNOL. 1:388-399(1989).
 RN [6]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 94150478.
 RA LI Y.S., SHY Y.J., WRIGHT J.G., VALENTE A.J., CORNHILL J.F.,
 RA KOLATTURUDY P.E.;
 RA MOL. CELL. BIOCHEM. 126:61-68(1993).
 RN [7]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 92095166.
 RA YOSHIMURA T., LEONARD E.J.;
 RA ADV. EXP. MED. BIOL. 305:47-56(1991).
 RN [8]
 RP SEQUENCE OF 24-99.
 RX MEDLINE: 89184525.
 RA ROBINSON E.A., YOSHIMURA T., LEONARD E.J., TANAKA S., GRIFFIN P.R.,
 RA SHAANOWITZ J., HUNT D.F., APPELLA E.;
 RA PROC. NATL. ACAD. SCI. U.S.A. 86:1850-1854(1989).
 RN [9]
 RP SEQUENCE OF 29-53 AND 82-92.
 RX MEDLINE: 90211336.
 RA DECOCK B., CONINGS R., LENAERTS J.-P., BILLIAD A., VAN DAMME J.;
 RA BIOCHEM. BIOPHYS. RES. COMMUN. 167:904-909(1990).
 RN [10]
 RP 3D-STRUCTURE MODELLING.

RX MEDLINE: 91312872.
 RA GROENENBORN A.M., CLORE G.M.;
 RA PROTEIN ENG. 4:263-269(1991).
 RN [11]
 RP X-RAY CRYSTALLOGRAPHY (1.85 ANGSTROMS).
 RX MEDLINE: 97143315.
 RA LUBKOWSKI J., BIJACZ G., DOMATILE P.J., HANDEL T.M., WLODAWER A.;
 RA NAT. STRUCT. BIOL. 4:64-69(1997).
 RN [12]
 RP STRUCTURE BY NMR.
 RX MEDLINE: 96234959.
 RA HANDEL T.M., DOMATILE P.J.;
 RA BIOCHEMISTRY 35:6569-6584(1996).
 RN [13]
 RP EFFECT OF DELETION OF N-TERMINAL RESIDUES.
 RX MEDLINE: 96195223.
 RA WEBER M., UGUCCIONI M., BAGGIOLINI M., CLARK-LEWIS I., DAHINDEN C.A.;
 RA J. EXP. MED. 183:681-685(1996).
 RN [14]
 RP MUTAGENESIS.
 RX MEDLINE: 94253189.
 RA ZHANG Y.J., RUTLEDGE B.J., ROLLINS B.J.;
 RA J. BIOL. CHEM. 269:15918-15924(1994).
 RN [15]
 RP SUBUNIT.
 RX MEDLINE: 97053697.
 RA KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.;
 RA FEBS LETT. 395:277-282(1996).
 RN [16]
 RP FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND BASOPHILS
 BUT NOT NEUTROPHILS OR EOSINOPHILS. AUGMENTS MONOCYTE ANTI-TUMOR
 ACTIVITY. HAS BEEN IMPLICATED IN THE PATHOGENESIS OF DISEASES
 CHARACTERIZED BY MONOCYTIC INFILTRATES, LIKE PSORIASIS, RHEUMATOID
 ARTHRITIS OR ATHEROSCLEROSIS. MAY BE INVOLVED IN THE RECRUITMENT
 OF MONOCYTES INTO THE ARTERIAL WALL DURING THE DISEASE PROCESS OF
 ATHEROSCLEROSIS.
 CC -1 SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM.
 CC -1 PTM: PROCESSING AT THE N-TERMINUS CAN REGULATE RECEPTOR AND TARGET
 CELL SELECTIVITY. DELETION OF THE AMINO-TERMINAL RESIDUE CONVERTS
 IT FROM AN ACTIVATOR OF BASOPHIL TO AN EOSINOPHIL CHEMOTACTANT.
 CC -1 SIMILARITY: BELONGS TO THE INTERCINE BETA FAMILY (SMALL CYTOKINE
 C-C) (CHEMOKINE CC).
 CC EMBL: M31626; G386961; -;
 DR EMBL: M30816; G386961; JOINED.
 DR EMBL: M31625; G386961; JOINED.
 DR EMBL: M24545; G307163; -;
 DR EMBL: M28226; G338009; -;
 DR EMBL: X14768; G34514; -;
 DR EMBL: M37719; G487124; -;
 DR EMBL: M28225; G338007; -;
 DR EMBL: M28223; G338007; JOINED.
 DR EMBL: M28224; G338007; JOINED.
 DR EMBL: S69738; G345465; -;
 DR EMBL: S71513; G240868; -;
 DR EMBL: A17786; G641145; -;
 DR PIR: A35474; A35474.
 DR PIR: S03339; S03339.
 DR PDB: IDOK; 12-MAR-97.
 DR PDB: IDOL; 12-MAR-97.
 DR PDB: IDOM; 14-OCT-96.
 DR PDB: IDON; 14-OCT-96.
 DR PDB: IMCA; 15-OCT-94.
 DR MIM: 158105; -;
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; 3D-STRUCTURE.
 FT SIGNAL 1 23
 FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 1.
 FT MOD.RES 24 24 PYRROLIDONE CARBOXYLIC ACID.
 FT DISULFID 34 59
 FT DISULFID 35 75
 FT CARBOHYD 37 75
 FT VARIANT 37 76
 FT MUTAGEN 24 24 POTENTIAL.
 FT 25 32 A -> T.
 FT 25 32 MISSING: LOSS OF ACTIVITY.
 FT 25 32 MISSING: LOSS OF ACTIVITY.

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FT MUTAGEN 24 85 MISSING: 90% REDUCTION IN ACTIVITY.
FT MUTAGEN 24 91 MISSING: 83% REDUCTION IN ACTIVITY.
FT MUTAGEN 26 26 D->A: 90% REDUCTION IN ACTIVITY.
FT MUTAGEN 29 29 N->A: 50% REDUCTION IN ACTIVITY.
FT MUTAGEN 47 47 R->F: 95% REDUCTION IN ACTIVITY.
FT MUTAGEN 50 50 S->O: 40% REDUCTION IN ACTIVITY.
FT MUTAGEN 51 51 Y->D: LOSS OF ACTIVITY.
FT MUTAGEN 53 53 R->L: LOSS OF ACTIVITY.
FT MUTAGEN 91 91 D->L: 90% REDUCTION IN ACTIVITY.
SQ SEQUENCE 99 AA: 11025 MW; 5355B695 CRC32;

Query Match 97.9%; Score 95; DB 1; Length 99;
Best Local Similarity 91.7%; Pred. No. 1.15e-09;
Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 73 EICADPKOKWQ 84
OY 1 EICADPKOKWQ 12

RESULT 2
ID MCP1_CANFA STANDARD; PRT: 101 AA.
AC P52203;
DT 01-OCT-1996 (REL. 34, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
DE CHEMOATTRACTANT PROTEIN-1).
GN SCYA2 OR MCP1.
OS CANIS FAMILIARIS (DOG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; CARNIVORA.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=JUGULAR VEIN ENDOTHELIAL;
RX MEDLINE: 97176620.
RA KUWAR A.G., BALLANTYNE C.M., MICHAEL L.H., KUKIELA G.L., YOKER K.A.,
RA LINDSEY M.L., HARKINS H.K., BIRDSALL H.H., MACKAY C.R., LAROSA G.J.,
RA ROSSEN R.D., SMITH C.W., ENTMAN M.L.;
RL CIRCULATION 95:693-700(1997).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS. IMPORTANT FACTOR IN THE COURSE OF THE INFLAMMATORY
CC REACTION TO REPERFUSION OF THE PREVIOUSLY ISCHEMIC MYOCARDIUM.
CC MAY PLAY A SIGNIFICANT ROLE IN MONOCYTE TRAFFICKING INTO THE
CC REPERFUSED MYOCARDIUM.
CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC -1- INDUCTION: BY TNF-ALPHA.
CC -1- TISSUE SPECIFICITY: ENDOTHELIUM OF SMALL VEINS AND INTRAPASCICULAR
CC VEINS. AND INFILTRATING LEUKOCYTES.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: U29653; G1144186;
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23 BY SIMILARITY.
FT CHAIN 24 101 MONOCYTE CHEMOTACTIC PROTEIN 1.
FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY
FT SIMILARITY).
FT DISULFID 34 59 BY SIMILARITY.
FT DISULFID 35 75 BY SIMILARITY.
SQ SEQUENCE 101 AA: 11121 MW; A7075B14 CRC32;

Query Match 97.9%; Score 95; DB 1; Length 101;
Best Local Similarity 91.7%; Pred. No. 1.15e-09;
Matches 11; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 73 EICADPKOKWQ 84
OY 1 EICADPKOKWQ 12

RESULT 3
ID MCP1_PIG STANDARD; PRT: 99 AA.
AC P52203;
DT 01-OCT-1996 (REL. 34, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
DE CHEMOATTRACTANT PROTEIN-1).
GN SCYA2 OR MCP1.
OS CANIS FAMILIARIS (DOG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; CARNIVORA.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=JUGULAR VEIN ENDOTHELIAL;
RX MEDLINE: 97176620.
RA KUWAR A.G., BALLANTYNE C.M., MICHAEL L.H., KUKIELA G.L., YOKER K.A.,
RA LINDSEY M.L., HARKINS H.K., BIRDSALL H.H., MACKAY C.R., LAROSA G.J.,
RA ROSSEN R.D., SMITH C.W., ENTMAN M.L.;
RL CIRCULATION 95:693-700(1997).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS. IMPORTANT FACTOR IN THE COURSE OF THE INFLAMMATORY
CC REACTION TO REPERFUSION OF THE PREVIOUSLY ISCHEMIC MYOCARDIUM.
CC MAY PLAY A SIGNIFICANT ROLE IN MONOCYTE TRAFFICKING INTO THE
CC REPERFUSED MYOCARDIUM.
CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC -1- INDUCTION: BY TNF-ALPHA.
CC -1- TISSUE SPECIFICITY: ENDOTHELIUM OF SMALL VEINS AND INTRAPASCICULAR
CC VEINS. AND INFILTRATING LEUKOCYTES.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: U29653; G1144186;
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23 BY SIMILARITY.
FT CHAIN 24 101 MONOCYTE CHEMOTACTIC PROTEIN 1.
FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY
FT SIMILARITY).
FT DISULFID 34 59 BY SIMILARITY.
FT DISULFID 35 75 BY SIMILARITY.
SQ SEQUENCE 101 AA: 11121 MW; A7075B14 CRC32;
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AC P42831.
DT 01-NOV-1995 (REL. 32, CREATED)
DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
GN SCYA2
OS SUS SCROFA (PIG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 94183284.
RA HOSANG K., KNOKE I., KLAUDINY J., WEMPE F., WITTKE W., SCHEIT K.H.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 199:962-968(1994).
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE-BRAIN;
RA ZACH O.R.F.;
RL SUBMITTED (JUL-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS.
CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: Z48479; G683717;
DR EMBL: X79416; G872313;
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23 BY SIMILARITY.
FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 1.
FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY
FT SIMILARITY).
FT DISULFID 34 59 BY SIMILARITY.
FT DISULFID 35 75 BY SIMILARITY.
SQ SEQUENCE 99 AA: 10976 MW; ECC3AFB4 CRC32;

Query Match 96.9%; Score 94; DB 1; Length 99;
Best Local Similarity 83.3%; Pred. No. 2.08e-09;
Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 73 EICADPKOKWQ 84
OY 1 EICADPKOKWQ 12

RESULT 4
ID MCP2_BOVIN STANDARD; PRT: 99 AA.
AC Q09141.
DT 01-NOV-1995 (REL. 32, CREATED)
DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
DE CHEMOATTRACTANT PROTEIN 2).
GN SCYA8 OR MCP2.
OS BOS TAURUS (BOVINE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 94114084.
RA WEMPE F., HANES J., SCHEIT K.H.;
RL DNA CELL BIOL. 13:1-8(1994).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN
CC CAN BIND HEPARIN.
CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: S67954; E118856;
DR EMBL: S67956; G544997;
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23 BY SIMILARITY.
FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 2.
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FT MOD_RES 24 24 PYROLIDONE CARBOXYLIC ACID (BY
FT DISULFID 34 59 SIMILARITY).
FT DISULFID 35 75 BY SIMILARITY.
SQ SEQUENCE 99 AA: 10900 MW: 98A2CD26 CRC32;
Query Match 94.8%; Score 92; DB 1; Length 99;
Best Local Similarity 75.0%; Pred. No. 6,73e-09;
Matches 9; Conservative 3; Mismatches 0; Indels 0; Gaps 0;
Db 73 DVCADPKKQKVVQ 84
Qy 1 EICADPKKQKVVQ 12
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RESULT 5
ID MCP4_HUMAN STANDARD; PRT; 98 AA.
AC Q09616;
DT 15-JUL-1998 (REL. 36, CREATED)
DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 4 PRECURSOR (MCP-4) (MONOCYTE
CHEMOTACTIC PROTEIN 4) (CK-BETA10) (MCP-1).
GN SCYA13 OR MCP4 OR NCCL.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUKARYOTA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=HEART;
RX MEDLINE: 97113354.
RA GARCIA-ZEVEDA E.A., COMBADIERE C., ROTHENBERG M.E., SARAFI M.N.,
RA LAVIGNE F., HAMID Q., MURPHY P.M., LUSTER A.D.;
RJ J. IMMUNOL. 157:5613-5626(1996).
RN [2]
RP SEQUENCE FROM N.A., AND SEQUENCE OF 17-98.
RC TISSUE=FETAL;
RX MEDLINE: 96235049.
RA UGICCIOMI M., LOETSCHER P., FORSSMANN U., DEMALD B., LI H., LIMA S.H.,
RA LI Y., KREIDER B., GAROTTA G., THELEN M., BAGGIOLINI M.;
RJ J. EXP. MED. 183:2379-2384(1996).
RN [3]
RP SEQUENCE FROM N.A., AND SEQUENCE OF 22-33.
RC TISSUE=FETAL;
RX MEDLINE: 97341179.
RA BERKHOUT T.A., SARAU H.M., MOORES K., WHITE J.R., ELSHOUBAGY N.,
RA APELBAUM E., SARAPE T.J., BRAUNER M., MAKANA J., FOLEY J.J.,
RA SCHMIDT D.B., IMBURGIA C., MACINDLY D., MATTHEWS J., O'DONNELL K.,
RA O'SHANNESSEY D., SCOTT M., GROOT P.H.E., MACPHEE C.;
RJ J. BIOL. CHEM. 272:16404-16413(1997).
RN [4]
RP SEQUENCE FROM N.A.
RA DATE M., GIBSON A.;
RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCYTES,
BASOPHILS AND EOSINOPHILS, BUT NOT NEUTROPHILS. SIGNALS THROUGH
CCR2B AND CCR3 RECEPTORS. PLAYS A ROLE IN THE ACCUMULATION OF
LEUKOCYTES AT BOTH SIDES OF ALLERGIC AND NONALLERGIC INFLAMMATION.
MAY BE INVOLVED IN THE RECRUITMENT OF MONOCYTES INTO THE ARTERIAL
WALL DURING THE DISEASE PROCESS OF ARTERIOSCLEROSIS. MAY PLAY A
ROLE IN THE MONOCYTE ATTRACTION IN TISSUES CHRONICALLY EXPOSED TO
EXOGENOUS PATHOGENS.
CC -1- MASS SPECTROMETRY: MM-9314; MM_ERR-30; METHOD-MALDI; RANGE-17-98.
CC -1- MASS SPECTROMETRY: MM-8760; MM_ERR-30; METHOD-MALDI; RANGE-22-98.
CC -1- MASS SPECTROMETRY: MM-8575; MM_ERR-30; METHOD-MALDI; RANGE-24-98.
CC -1- INDUCTION: BY INTERLEUKIN-1 AND TNF-ALPHA.
CC -1- TISSUE SPECIFICITY: WIDELY EXPRESSED. FOUND IN SMALL INTESTINE,
THYMUS, COLON, LUNG, TRACHEA, STOMACH AND LYMPH NODE. LOW LEVELS
SPEN IN THE PULMONARY ARTERY SMOOTH MUSCLE CELLS.
CC -1- THIS PROTEIN CAN BIND HEPARIN.
CC -1- PTM: ONE MAJOR ISOFORM MCP-4, AND TWO MINOR ISOFORMS (LA)MCP-4 AND
(FNPGLA)MCP-4 ARE PRODUCED BY DIFFERENTIAL SIGNAL CLEAVAGE.
CC (LA)MCP-4 IS ABOUT 30 FOLD LESS ACTIVE THAN MCP-4.

CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
DR EMBL: U46767; G1732123; -.
DR EMBL: AC002482; G2340091; -.
DR MIM: 601391; -.
DR PROSITE: PS00472; SMALL CYTOKINES CC; 1.
CC CYTOKINE; CHEMOKINES; SIGNAL; GLYCOPROTEIN; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23
FT CHAIN 1 23
FT MOD_RES 24 98 MONOCYTE CHEMOTACTIC PROTEIN 4.
FT DISULFID 24 24 PYROLIDONE CARBOXYLIC ACID.
FT DISULFID 34 58 BY SIMILARITY.
FT DISULFID 35 74 BY SIMILARITY.
FT CARBOHYD 29 29 POTENTIAL.
SQ SEQUENCE 98 AA: 10986 MW: DF52FE6C CRC32;
Query Match 93.8%; Score 91; DB 1; Length 98;
Best Local Similarity 83.3%; Pred. No. 1.21e-08;
Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
Db 72 EICADPKKQKVVQ 83
Qy 1 EICADPKKQKVVQ 12
:::|||||||:|
RESULT 6
ID MCP4_BOVIN STANDARD; PRT; 99 AA.
AC P28291;
DT 01-DEC-1992 (REL. 24, CREATED)
DT 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1A PRECURSOR (MCP-1A) (MCP-1) (ACIDIC
SEMINAL FLUID PROTEIN).
OS BOS TAURUS (BOVINE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUKARYOTA; ARTIODACTYLA.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=SEMINAL PLASMA;
RX MEDLINE: 92096117.
RA WEMPE F., HENSCHEN A., SCHEIT K.H.;
RJ DNA CELL BIOL. 10:671-679(1991).
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE=SEMINAL PLASMA;
RX MEDLINE: 92181448.
RA WEMPE F., EINSPIERER R., SCHEIT K.H.;
RJ BIOCHEM. BIOPHYS. RES. COMMUN. 183:232-237(1992).
RN [3]
RP SEQUENCE FROM N.A.
RX MEDLINE: 94338337.
RA WEMPE F., KOHLMANN J.K., SCHEIT K.H.;
RJ BIOCHEM. BIOPHYS. RES. COMMUN. 202:1272-1279(1994).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
NEUTROPHILS.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
CC EMBL: L32659; G624594; -.
CC EMBL: M84602; G163395; -.
DR PIR: A39296; A39296.
DR PIR: JC2336; JC2336.
DR HSSP: P13500; IMCA.
DR PROSITE: PS00472; SMALL CYTOKINES CC; 1.
CC CYTOKINE; CHEMOKINES; SIGNAL.
FT SIGNAL 1 23
FT CHAIN 1 23
FT MOD_RES 24 99 MONOCYTE CHEMOTACTIC PROTEIN 1A.
FT DISULFID 24 24 PYROLIDONE CARBOXYLIC ACID (BY
SIMILARITY).
FT DISULFID 34 59 BY SIMILARITY.
FT DISULFID 35 75 BY SIMILARITY.
SQ SEQUENCE 99 AA: 11114 MW: C8F5821D CRC32;
Query Match 92.8%; Score 90; DB 1; Length 99;
Best Local Similarity 83.3%; Pred. No. 2.16e-08;

Matches 10; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 73 EICADPPKRWQ 84
 1 EICADPPKRWQ 12

Query 1 EICADPPKRWQ 12

RESULT 7
 ID MCLP1_RABIT STANDARD; PRT; 125 AA.
 AC P28292;
 DT 01-DEC-1992 (REL. 24, CREATED)
 DT 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
 GN SCY1A2.
 OS ORYCTOLAGUS CUNICULUS (RABBIT).
 OC EUKARYOTA; METAEOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 RN EUTHERIA; LAGOMORPHA.
 [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-NEW ZEALAND WHITE; TISSUE-SPLEEN;
 RX MEDLINE; 91225489.
 RA YOSHIMURA T., YUHKI N.;
 RT J. IMMUNOL. 146:3483-3488(1991).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
 CC NEUTROPHILS.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER, IN EQUILIBRIUM (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 C-C) (CHEMOKINE CC).
 DR EMBL: M57440; G165470; -.
 DR HSSP: P13500; IMCA.
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
 DR CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
 KW SIGNAL
 FT CHAIN 1 23
 FT MOD_RES 24 24
 FT DISULFID 34 59
 FT DISULFID 35 75
 FT CARBOHYD 40 40
 FT CARBOHYD 55 55
 FT CARBOHYD 112 112
 SQ SEQUENCE 125 AA; 13776 MW; P8AC9D27 CRC32;

Query Match 91.8%; Score 89; DB 1; Length 125;
 Best Local Similarity 90.9%; Pred. No. 3.85e-08;
 Matches 10; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 74 ICADPPKRWQ 84
 2 ICADPPKRWQ 12

Query 2 ICADPPKRWQ 12

RESULT 8
 ID POTA_RAT STANDARD; PRT; 97 AA.
 AC P97345; C08780;
 DT 15-JUL-1998 (REL. 36, CREATED)
 DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
 OS RATUUS NORVEGICUS (RAT).
 OC EUKARYOTA; METAEOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 RN EUTHERIA; RODENTIA.
 [1]
 RP SEQUENCE FROM N.A.
 RA WILLIAMS C.M., NEWTON D.J., WILSON S.A., COLEMAN J.C.,
 RA FLANNAGAN B.F.;
 RN SUBMITTED (DEC-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
 [2]
 RP SEQUENCE FROM N.A.
 RC TISSUE-LUNG;
 RA ISHII Y.;
 RT SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.

CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
 CC DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
 CC FEATURE OF ALLERGIC INFLAMMATORY REACTIONS (BY SIMILARITY).
 CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
 CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 C-C) (CHEMOKINE CC).
 DR EMBL: Y08358; E274141; -.
 DR EMBL: U96637; G2098785; -.
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
 KW EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
 KW INFLAMMATORY RESPONSE
 FT SIGNAL 1 23
 FT CHAIN 24 97
 FT DISULFID 32 57
 FT DISULFID 33 73
 FT CARBOHYD 94 94
 FT CONFLICT 3 3
 SQ SEQUENCE 97 AA; 10851 MW; 05B4ED45 CRC32;

Query Match 90.7%; Score 88; DB 1; Length 97;
 Best Local Similarity 83.3%; Pred. No. 6.85e-08;
 Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 71 EICADPPKRWQ 82
 1 EICADPPKRWQ 12

Query 1 EICADPPKRWQ 12

RESULT 9
 ID EOTA_MOUSE STANDARD; PRT; 97 AA.
 AC P48296;
 DT 01-FEB-1996 (REL. 33, CREATED)
 DT 01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
 GN SCY1A1.
 OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAEOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 RN EUTHERIA; RODENTIA.
 [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-LUNG;
 RX MEDLINE; 96004658.
 RA ROTHENBERG M.E., LUSTER A.D., LEDER P.;
 RT PROC. NATL. ACAD. SCI. U.S.A. 92:8960-8964(1995).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC STRAIN-C57BL/6J; TISSUE-LUNG;
 RX MEDLINE; 96158746.
 RA GONZALO J.-A., JIA G.-O., AGUIRRE V., FRIEND D., COYLE A.J.,
 RA JENKINS N.A., LIN G.-S., KATZ H., LICHTMAN A., COPELAND N.G., KOPE M.,
 RA GUTIERREZ-RAMOS J.-C.;
 RT IMMUNITY 4:1-14(1996).
 CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
 CC DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS (A PROMINENT
 CC FEATURE OF ALLERGIC INFLAMMATORY REACTIONS), BUT NOT
 CC LYMPHOCYTES, MACROPHAGES OR NEUTROPHILS.
 CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
 CC -1- TISSUE SPECIFICITY: EXPRESSED CONSTITUTIVELY IN THE THYMUS.
 CC EXPRESSION INDUCIBLE IN THE LUNG (TYPE I ALVEOLAR EPITHELIAL
 CC CELLS), INTESTINE, HEART, SPLEEN, KIDNEY.
 CC -1- INDUCTION: BY INTERFERON-GAMMA AND LIPOPOLYSACCHARIDE (LPS).
 CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 C-C) (CHEMOKINE CC).
 DR EMBL: U26426; G995911; -.
 DR EMBL: U40672; G111937; -.
 DR MGI: 103576; SCY1A1.
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
 KW EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
 KW INFLAMMATORY RESPONSE.
 FT SIGNAL 1 23
 FT MOD_RES 24 24
 FT DISULFID 34 59
 FT DISULFID 35 75
 FT CARBOHYD 40 40
 FT CARBOHYD 55 55
 FT CARBOHYD 112 112
 SQ SEQUENCE 125 AA; 13776 MW; P8AC9D27 CRC32;

FT CHAIN 24 97 EOTAXIN.
 FT DISULFID 32 57 BY SIMILARITY.
 FT DISULFID 33 73 BY SIMILARITY.
 SQ SEQUENCE 97 AA; 10893 MW; F85A96BC CRC32;
 Query Match 90.7%; Score 88; DB 1; Length 97;
 Best Local Similarity 83.3%; Pred. No. 6.85e-08;
 Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 71 EICADPKKRWQ 82
 1 EICADPKRWQ 12

RESULT 10
 ID MCP3_HUMAN STANDARD; PRT; 99 AA.
 AC P80098;
 DT 01-DEC-1992 (REL. 24, CREATED)
 DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 3 PRECURSOR (MCP-3) (MONOCYTE
 DE CHEMOTACTIC PROTEIN 3) (NC28).
 GN SCY7 OR MCP3.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A., AND SEQUENCE OF 31-67 AND 71-99.
 RX MEDLINE; 93213290.
 RA ODENAKKEK G., FROYEN G., FITEEN P., PROOST P., VAN DAMME J.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 191:535-542(1993).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 94375065.
 RA ODENAKKEK G., FITEEN P., FROYEN G., VAN ROY N., SPELEMAN F.,
 RA LAURENS G., VAN DAMME J.;
 RL GENOMICS 21:403-408(1994).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 93305913.
 RA MINTY A., CHALON P., GUILLEMOT J.C., KAGHAD M., LIAUZUN P.,
 RA MAGAÏN M., MULLOUX B., MINTY C., RAMOND P., VITA N., LUPKER J.,
 RA SHIRE D., FERRARA P., CAPUT D.;
 RL EUR. CYTOKINE NETW. 4:99-110(1993).
 RN [4]
 RP SEQUENCE OF 30-99.
 RC TISSUE=OSTEOSARCOMA;
 RX MEDLINE; 92308855.
 RA VAN DAMME J., PROOST P., LENAERTS J.-P., ODENAKKEK G.;
 RL J. EXP. MED. 176:59-65(1992).
 RN [5]
 RP STRUCTURE BY NMR, AND SUBUNIT.
 RX MEDLINE; 97053697.
 RA KIM K.-S., RAJATHANAM K., CLARK-LEWIS I., SYKES B.D.;
 RL FEBS LETT. 395:277-282(1996).
 RN [6]
 RP STRUCTURE BY NMR.
 RX MEDLINE; 97263733.
 RA MEUNIER S., BERNASSAU J.-M., GUILLEMOT J.-C., FERRARA P., DARBON H.;
 RL BIOCHEMISTRY 36:4412-4422(1997).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND
 CC EOSINOPHILS, BUT NOT NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR
 CC ACTIVITY. ALSO INDUCES THE RELEASE OF GELATINASE B. THIS PROTEIN
 CC CAN BIND HEPARIN.
 CC -1- SUBUNIT: MONOMER.
 CC -1- PTM: O-GLYCOSYLATED.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL; X72308; G313708; ALT_INIT.
 DR EMBL; X72309; -; NOT_ANNOTATED_CDS.
 DR EMBL; X71087; G288398; ALT_INIT.
 DR EMBL; X71087; G288398; ALT_INIT.
 DR EMBL; X71087; G288397; ALT_INIT.

DR PIR; JCI478; JCI478.
 DR PIR; S32222; S32222.
 DR PIR; A54678; A54678.
 DR PDB; INCV; 15-OCT-97.
 DR MIM; 158106; -.
 DR PROSITE; P500472; SMALL CYTOKINES CC; 1.
 KW CYTOKINE, CHEMOTACTIC, HEPARIN-BINDING, GLYCOPROTEIN, SIGNAL;
 KW INFLAMMATORY RESPONSE; 3D-STRUCTURE.
 FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 3.
 FT MOD.RES 24 24 PYROLIDONE CARBOXYLIC ACID.
 FT DISULFID 34 59 BY SIMILARITY.
 FT DISULFID 35 75 BY SIMILARITY.
 FT CARBOHYD 29 29 POTENTIAL.
 FT CONFLICT 30 30 T->K (IN REF. 4).
 FT CONFLICT 68 70 MISSING (IN REF. 4).
 SQ SEQUENCE 99 AA; 11200 MW; 7502E19C CRC32;

Query Match 90.7%; Score 88; DB 1; Length 99;
 Best Local Similarity 83.3%; Pred. No. 6.85e-08;
 Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 73 EICADPKRWQ 84
 1 EICADPKRWQ 12

RESULT 11
 ID EOTA_HUMAN STANDARD; PRT; 97 AA.
 AC P51671; P50877; Q92490; Q92491;
 DT 01-OCT-1996 (REL. 34, CREATED)
 DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
 DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
 DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
 GN SCY11.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 96181758.
 RA GARCIA-ZEPEDA E.A., ROTHENBERG M.E., OMNEY T.R., LEDER P.,
 RA LUSTER A.D.;
 RL NAT. MED. 2:449-456(1996).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 96189337.
 RA PONATH P.D., QIN S., RINGLER D.J., CLARK-LEWIS I., WANG J., KASSAM N.,
 RA SMITH H., SHI X., GONZALO J.A., NEWMAN W., GUTIERREZ-RAMOS J.C.,
 RA MACKAY C.R.;
 RL J. CLIN. INVEST. 97:604-612(1996).
 RN [3]
 RP SEQUENCE FROM N.A.
 RC TISSUE=SMALL INTESTINE;
 RX MEDLINE; 96205964.
 RA KITAHARA M., NAKAJIMA T., IMAI T., HARADA S., COMBADIÈRE C.,
 RA TIFRANY H.L., MURPHY P.M., YOSHIE O.;
 RL J. BIOL. CHEM. 271:7725-7730(1996).
 RN [4]
 RP SEQUENCE FROM N.A., SEQUENCE OF 60-65 AND 75-88, AND VARIANTS.
 RC TISSUE=FORESKIN;
 RX MEDLINE; 96374440.
 RA BARTELS J., SCHLUTTER C., RICHTER E., NOSO N., KULKE R.,
 RA CHRISTOPHERS E., SCHROEDER J.M.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 225:1045-1051(1996).
 RN [5]
 RP SEQUENCE FROM N.A.
 RC TISSUE=PLACENTA.
 RX MEDLINE; 97312708.
 RA GARCIA-ZEPEDA E.A., ROTHENBERG M.E., WEREMOWICZ S., SARAFI M.N.,
 RA MORTON C.C., LUSTER A.D.;
 RL GENOMICS 41:471-476(1997).
 RN [6]

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RP SEQUENCE FROM N.A.
RC TISSUE-LUNG;
RX MEDLINE; 97445071.
RA HEIN H., SCHLEUTER C., KULKE R., CHRISTOPHERS E., SCHROEDER J.M.,
RA BARTELS J.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 237:537-542(1997).
CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
CC DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
CC FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.
CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
CC -1- INDUCTION: BY TNF-ALPHA, IL-1-ALPHA AND INTERFERON GAMMA.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL; 046573; G1280141; -.
DR EMBL; 034780; G1185440; -.
DR EMBL; 049372; G1552241; -.
DR EMBL; 269291; E221070; -.
DR EMBL; 275668; E251275; -.
DR EMBL; 275669; E251258; -.
DR EMBL; 046572; G2088509; -.
DR EMBL; 292709; E329504; -.
DR MIM; 601156; -.
DR PROSITE; PS00472; SMALL CYTOKINES, CC; 1.
DR EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
KM INFLAMMATORY RESPONSE; POLYMORPHISM.
FT SIGNAL 1 23
FT CHAIN 1 97
FT RN 97
FT DISULFID 32 57
FT DISULFID 33 73
FT VARIANT 7 7
FT VARIANT 23 23
FT VARIANT 51 51
FT VARIANT 79 79
SQ SEQUENCE 97 AA; 10732 MW; 6C0F3D98 CRC32;

Query Match
Best Local Similarity 89.7%; Score 87; DB 1; Length 97;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 71 DICADPRKKWKQ 82
QY 1 EICADPRKKWKQ 12

RESULT 12
ID MCP2_PIG STANDARD; PRT; 99 AA.
AC P49873;
DT 01-OCT-1996 (REL. 34, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
DE CHEMOTACTIC PROTEIN 2).
GN SCY2 OR MCP2.
OS SUS SCROFA (PIG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE; 95091716.
RA HOSANG K.K., KNOKE I.I., KLAUDINY J.J., WEMPE F.F., WUTTKE W.W.,
RA SCHEIT K.K.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 205:148-153(1994).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN
CC CAN BIND HEPARIN.
CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL; 248480; G683719; -.
DR PROSITE; PS00472; SMALL CYTOKINES, CC; 1.
DR CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23
FT CHAIN 24 99
SQ SEQUENCE FROM N.A.

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FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY
FT DISULFID 34 59 SIMILARITY).
FT DISULFID 35 75 BY SIMILARITY.
SQ SEQUENCE 99 AA; 10903 MW; B7620BCF CRC32;

Query Match
Best Local Similarity 88.7%; Score 86; DB 1; Length 99;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 73 EVCADPQOKWQ 84
QY 1 EICADPRKKWKQ 12

RESULT 13
ID MCP1_CAVPO STANDARD; PRT; 120 AA.
AC 008782;
DT 01-NOV-1995 (REL. 32, CREATED)
DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
DE CHEMOTACTIC PROTEIN 1).
GN SCY2 OR MCP1.
OS CAVIA PORCELLUS (GUINEA PIG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RX STRAIN-2; TISSUE-SPLEEN;
RX MEDLINE; 93267104.
RA YOSHIMURA T.;
RL J. IMMUNOL. 150:5025-5032(1993).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS.
CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL; L04985; G349821; -.
DR PROSITE; PS00472; SMALL CYTOKINES, CC; 1.
DR CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
FT SIGNAL 1 23
FT CHAIN 24 120
FT MOD_RES 24 24
FT DISULFID 33 57
FT DISULFID 34 73
FT CARBOHYD 97 97
SQ SEQUENCE 120 AA; 13741 MW; 22FAD257 CRC32;

Query Match
Best Local Similarity 88.7%; Score 86; DB 1; Length 120;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 71 EVCADPQOKWQ 82
QY 1 EICADPRKKWKQ 12

RESULT 14
ID MCP5_MOUSE STANDARD; PRT; 104 AA.
AC 062401;
DT 01-NOV-1997 (REL. 35, CREATED)
DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 5 PRECURSOR (MCP-5) (MCP-1 RELATED
DE CHEMOKINE).
GN SCY2 OR MCP5.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.

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RX MEDLINE: 97079149.
RA JIA G.-Q., GONZALO J.A., LLOYD C., KREMER L., LU L., MARTINEZ A.C.,
RA WERSHIL B.K., GUTIERREZ-RAMOS J.C.;
RL J. EXP. MED. 184:1939-1951(1996).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 97149438.
RA SARAFI M.N., GARCIA-ZEPEDA E.A., MACLEAN J.A., CHANO I.F.,
RA LUSTER A.D.;
RL J. EXP. MED. 185:99-109(1997).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS EOSINOPHILS, MONOCYTES,
AND LYMPHOCYTES BUT NOT NEUTROPHILS. POTENT MONOCYTE ACTIVE
CHEMOKINE THAT SIGNALS THROUGH CCR2. INVOLVED IN ALLERGIC
INFLAMMATION AND THE HOST RESPONSE TO PATHOGENS AND MAY PLAY A
PIVOTAL ROLE DURING EARLY STAGES OF ALLERGIC LUNG INFLAMMATION.
CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
CC -1- TISSUE SPECIFICITY: PREDOMINANTLY EXPRESSED IN THE LYMPH NODES AND
THYMUS. ALSO FOUND IN THE SALIVARY GLANDS CONTAINING LYMPH NODES,
BREAST, HEART, LUNG, BRAIN, SMALL INTESTINE, KIDNEY AND COLON.
CC -1- INDUCTION: BY IFN-GAMMA AND LIPOPOLYSACCHARIDE (LPS).
CC -1- SIMILARITY: BELONGS TO THE INTERCINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
DR EMBL: U50712; G147582; -.
DR EMBL: U66670; G1881583; -.
DR MGD: MGI:108224; SCYAL2.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
DR CYTOKINE: CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
KW SIGNAL 1 22 BY SIMILARITY.
FT CHAIN 23 104 MONOCYTE CHEMOTACTIC PROTEIN 5.
FT DISULFID 33 58 BY SIMILARITY.
FT DISULFID 34 74 BY SIMILARITY.
SQ SEQUENCE 104 AA; 11659 MM; 08FA6C35 CRC32;

Query Match 86.6%; Score 84; DB 1; Length 104;
Best Local Similarity 81.8%; Pred. No. 6,72e-07;
Matches 9; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Db 72 EICADPKKRW 82
OY 1 EICADPKRWI 11
IIIIIIIIII

RESULT 15
ID EOTA_CANPO STANDARD; PRT; 96 AA.
AC P80325;
DT 01-JUN-1994 (REL. 29, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
GN SCYAL1.
OS CAVIA PORCELLUS (GUINEA PIG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RX TISSUE=LUNG;
RA MEDLINE: 95173589.
RA ROTHENBERG M.E., LUSTER A.D., LILLY C.M., DRAZEN J.M., LEDER P.;
RL J. EXP. MED. 181:1211-1216(1995).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 95091818.
RA JOSE P.J., ADCOCK I.M., GRIFFITHS-JOHNSON D.A., BERKMAN N.,
RA WELLS T.C., WILLIAMS T.J., POWER C.A.;
RA BIOCHEM. BIOPHYS. RES. COMMUN. 205:788-794(1994).
RN [3]
RP SEQUENCE OF 24-96.
RC STRAIN=HARTLEY; TISSUE=LUNG;
RX MEDLINE: 94157409.
RA JOSE P.J., GRIFFITHS-JOHNSON D.A., COLLINS P.D., WALSH D.T.,
RA MOOBLER R., TOTTY N.F., TRUONG O., HSUAN J.J., WILLIAMS T.J.;
RL J. EXP. MED. 179:881-887(1994).
CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN

CC DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.
CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
CC -1- TISSUE SPECIFICITY: LUNG.
CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
CC -1- SIMILARITY: BELONGS TO THE INTERCINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
DR EMBL: U18941; G687656; -.
DR EMBL: X77603; G602552; -.
DR HSSP: P13500; IMCA.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
INFLAMMATORY RESPONSE.
FT SIGNAL 1 23
FT CHAIN 24 96 EOTAXIN.
FT DISULFID 31 56 BY SIMILARITY.
FT DISULFID 32 72 BY SIMILARITY.
FT CARBOHYD 93 93 POTENTIAL.
FT CONFLICT 88 88 D->G (IN REF. 2).
SQ SEQUENCE 96 AA; 10753 MM; DD28C7E5 CRC32;

Query Match 84.5%; Score 82; DB 1; Length 96;
Best Local Similarity 81.8%; Pred. No. 2,07e-06;
Matches 9; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 71 ICADPKKRWQ 81
OY 2 ICADPKRWIQ 12
IIIIIIIIII

RESULT 16
ID IL8_CANPA STANDARD; PRT; 101 AA.
AC P41324;
DT 01-FEB-1995 (REL. 31, CREATED)
DT 01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8).
GN IL8.
OS CANIS FAMILIARIS (DOG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; CARNIVORA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 94010328.
RA ISHIKAWA J., SUZUKI S., HOTTA K., HIROTA Y., MIZUNO S., SUZUKI K.;
RL GENE 131:305-306(1993).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 95127913.
RA MATSUMOTO Y., MOHAMED A., ONODERA T., KATO H., OHASHI T.,
RA GOITSUKA R., TSUDIMOTO H., HASEGAWA A., FURUSAWA S., YOSHIMURA K.,
RA ISHIKAWA J., HOTTA K., SUZUKI K., HIROTA Y.;
RL CYTOKINE 6:455-461(1994).
RN [3]
RP SEQUENCE FROM N.A.
RC STRAIN=MONGREL; TISSUE=JUGULAR VEIN;
RX MEDLINE: 95114148.
RA KUKIELKA G.L., SMITH W.C., LAROSA G.J., MANNING A.M.,
RA MENDOZA L.H., DALY T.J., HUGHES B.J., YOEKER K.A., HAWKINS H.K.,
RL MICHAEL L.H., ROT A., ENTMAN M.L.;
RL J. CLIN. INVEST. 95:89-103(1994).
CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
RESPONSE TO AN INFLAMMATORY STIMULUS.
CC -1- SUBUNIT: HOMODIMER.
CC -1- SIMILARITY: BELONGS TO THE INTERCINE ALPHA FAMILY (SMALL CYTOKINE
C-X-C) (CHEMOKINE CXCL).
DR EMBL: D28772; G517100; -.
DR EMBL: D14285; G475152; -.
DR EMBL: U10308; G607814; -.
DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.

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KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 22 BY SIMILARITY.
FT CHAIN 23 101 INTERLEUKIN-8.
FT DISULFID 34 61 BY SIMILARITY.
FT DISULFID 36 77 BY SIMILARITY.
SQ SEQUENCE 101 AA; 11280 MW; 7C49D65D CRC32;

Query Match 84.5%; Score 82; DB 1; Length 101;
Best Local Similarity 66.7%; Pred. No. 2.07e-06;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

DB 75 EYCLDPKREKRWQ 86
OY 1 EICADPKOKRWIQ 12

RESULT 17
ID IL8 SHEEP STANDARD; PRT; 101 AA.
AC P36925;
DT 01-JUN-1994 (REL. 29, CREATED)
DT 01-JUN-1994 (REL. 29, LAST SEQUENCE UPDATE)
DE 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8).
GN IL8.
OS OVIS ARIES (SHEEP).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLA.
RN (1)
RP SEQUENCE FROM N.A.
RX MEDLINE: 95121931.
RA LECSTELTOS I. GREENLAND T., ARNAUD P., MORNEJX J.F., CONDIER G.;
RL GENE 150:367-369(1994).
RN (2)
RP SEQUENCE FROM N.A.
RX MEDLINE: 95137691.
RA SEON H.F., YOSHIMURA T., WOOD P.R., COLDITZ I.G.;
RL IMMUNOL. CELL BIOL. 72:398-405(1994).
CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
RESPONSE TO AN INFLAMMATORY STIMULUS.
CC -1- SUBUNIT: HOMODIMER.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
C-X-C) (CHEMOKINE CXC).
CC CC
DR EMBL: X78306; G463234; -.
DR EMBL: S74436; G786591; -.
DR PIR: S42496; S42496.
DR HSSP: P10145; 31I8.
DR PROSITE: PS00471; SMALL CYTOKINES_CXC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 22 BY SIMILARITY.
FT CHAIN 23 101 INTERLEUKIN-8.
FT DISULFID 34 61 BY SIMILARITY.
FT DISULFID 36 77 BY SIMILARITY.
SQ SEQUENCE 101 AA; 11292 MW; 5A574527 CRC32;

Query Match 84.5%; Score 82; DB 1; Length 101;
Best Local Similarity 66.7%; Pred. No. 2.07e-06;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

DB 75 EYCLDPKREKRWQ 86
OY 1 EICADPKOKRWIQ 12

RESULT 18
ID IL8 PIG STANDARD; PRT; 103 AA.
AC P26894; P22951;
DT 01-AUG-1991 (REL. 19, CREATED)
DT 01-AUG-1992 (REL. 23, LAST SEQUENCE UPDATE)
DT 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8) (ALVEOLAR MACROPHAGE CHEMOTACTIC FACTOR
I) (AMCF-I).

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GN IL8.
OS SUS SCROFA (PIG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLA.
RN (1)
RP SEQUENCE FROM N.A.
RX MEDLINE: 94103307.
RA LIN G., PEARSON A.E., SCAMURRA R.W., ZHOU Y., BAANSCH M.J.,
RA WEISS D.J., MURTAUGH M.P.;
RL J. BIOL. CHEM. 269:77-85(1994).
RN (2)
RP SEQUENCE FROM N.A.
RA SANANMALA M.;
RL SUBMITTED (JUL-1991) TO EMBL/GENBANK/DDBJ DATA BANKS.
RN (3)
RP SEQUENCE FROM N.A., AND SEQUENCE OF 26-45.
RC TISSUE-LUNG;
RX MEDLINE: 93041741.
RA GOODMAN R.B., FOSTER D.C., MATHEWS S.L., OSBORN S.G., KUIJPER J.L.,
RA FORSTROM J.W., MARTIN T.R.;
RL BIOCHEMISTRY 31:10483-10490(1992).
RN (4)
RP REVISION TO 23.
RA GOODMAN R.B.;
RL SUBMITTED (MAR-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
RN (5)
RP SEQUENCE OF 26-45.
RC STRAIN-YORKSHIRE;
RX MEDLINE: 91217086.
RA GOODMAN R.B., FORSTROM J.W., OSBORN S.G., CHI E.Y., MARTIN T.R.;
RL J. BIOL. CHEM. 268:8435-8463(1991).
CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
RESPONSE TO AN INFLAMMATORY STIMULUS.
CC -1- SUBUNIT: HOMODIMER.
CC -1- TISSUE SPECIFICITY: ALVEOLAR MACROPHAGES.
CC -1- INDUCTION: BY LIPOPOLYSACCHARIDE.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
C-X-C) (CHEMOKINE CXC).
CC CC
DR EMBL: M86923; G164521; -.
DR EMBL: X61151; G516197; -.
DR EMBL: M99367; G133612; -.
DR PIR: A44253; A44253.
DR PIR: A44253; A44253.
DR HSSP: P10145; 31I8.
DR PROSITE: PS00471; SMALL CYTOKINES_CXC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 25
FT CHAIN 26 103 INTERLEUKIN-8.
FT DISULFID 34 61 BY SIMILARITY.
FT DISULFID 36 77 BY SIMILARITY.
FT CONFLICT 33 34 RC -> CR (IN REF. 5).
SQ SEQUENCE 103 AA; 11633 MW; A012D59D CRC32;

Query Match 84.5%; Score 82; DB 1; Length 103;
Best Local Similarity 66.7%; Pred. No. 2.07e-06;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

DB 75 EYCLDPKREKRWQ 86
OY 1 EICADPKOKRWIQ 12

RESULT 19
ID M1A RAT STANDARD; PRT; 92 AA.
AC P50229;
DT 01-OCT-1996 (REL. 34, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR (MIP-1-ALPHA).
GN SCV13 OR MIP1A.

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DR 'HSSP: P13500; IMCA.
 DR MM: 602283; -
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE;
 KW POLYMORPHISM.
 FT SIGNAL 1 23 PROBABLE.
 FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 2.
 FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID.
 FT DISULFID 34 59 BY SIMILARITY.
 FT DISULFID 35 75 BY SIMILARITY.
 FT VARIANT 69 69 K->Q.
 SQ SEQUENCE 99 AA; 11246 MW; 5DD05C20 CRC32;
 Query Match 82.5%; Score 80; DB 1; Length 99;
 Best Local Similarity 58.3%; Pred. No. 6.33e-06;
 Matches 7; Conservative 5; Mismatches 0; Indels 0; Gaps 0;
 Db 73 EVCADPKRHWY 84
 QY 1 EICADPKRQKWQ 12
 RESULT 22
 ID MIP4_HUMAN STANDARD; PRT; 89 AA.
 AC P55774;
 DT 01-NOV-1997 (REL. 35, CREATED)
 DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MACROPHAGE INFLAMMATORY PROTEIN 4 PRECURSOR (MIP-4) (PULMONARY AND
 DE ACTIVATION-REGULATED CHEMOKINE) (CC CHEMOKINE PARC) (ALTERNATIVE
 DE SCRA18 OR MIP4.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA LI H., RUBEN S.;
 RL PATENT NUMBER US5504003.
 RN [2]
 RP SEQUENCE FROM N.A., AND PARTIAL SEQUENCE.
 RC TISSUE-AORTA, AND LUNG;
 RX MEDLINE; 97376836.
 RA HITSUMI K., IMAI T., BABA M., SHOUDAI K., ISHIZUKA K.,
 RA NAKAGAWA T., TSURUTA J., TAKEYA M., SAKAKI Y., TAKATSUKI K.,
 RA MURA R., OOPENAKKER G., VAN DAMME J., YOSHIE O., NOMIYAMA H.;
 RL J. IMMUNOL. 159:1140-1149(1997).
 RN [3]
 RP SEQUENCE FROM N.A.
 RA KODELJA V., MUELLER C., POLITZ O., HAKIT N., ORFANOS C.E., GOERDT S.;
 RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [4]
 RP DISCUSSION OF SEQUENCE.
 RA MEDLINE; 97275308.
 RA WELLS T.N.C., PETTSCH M.C.;
 RL J. LEUKOC. BIOL. 61:545-550(1997).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS LYMPHOCYTES BUT NOT
 CC MONOCYTES OR GRANULOCYTES. MAY BE INVOLVED IN B CELL MIGRATION
 CC INTO B CELL FOLLICLES IN LYMPH NODES.
 CC -1- TISSUE SPECIFICITY: EXPRESSED AT HIGH LEVELS IN THE LUNG. A LOWER
 CC LEVEL EXPRESSION IS SEEN IN LYMPHOID TISSUES SUCH AS LYMPH NODES,
 CC THYMUS AND APPENDIX.
 CC -1- INDUCTION: BY LIPOPOLYSACCHARIDE (LPS).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL; AB000221; D1022520; -
 DR EMBL; Y13710; E321838; -
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 20
 FT CHAIN 21 89 MACROPHAGE INFLAMMATORY PROTEIN 4.
 FT DISULFID 30 54 BY SIMILARITY.
 FT DISULFID 31 70 BY SIMILARITY.

SQ SEQUENCE 89 AA; 9849 MW; 052NA3DC CRC32;
 Query Match 81.4%; Score 79; DB 1; Length 89;
 Best Local Similarity 66.7%; Pred. No. 1.10e-05;
 Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;
 Db 68 QICADPKRHWY 79
 QY 1 EICADPKRQKWQ 12
 RESULT 23
 ID IL8_BOVIN STANDARD; PRT; 101 AA.
 AC P19255;
 DT 01-NOV-1997 (REL. 35, CREATED)
 DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
 DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
 DE INTERLEUKIN-8 PRECURSOR (IL-8).
 GN IL8.
 OS BOS TAURUS (BOVINE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 96304552.
 RA MORSEY M.A., POPOWYCH Y., KOWALSKI J., GERLACH G., GODSON D.,
 RA CAMPOS M., BABIK L.A.;
 RL MICROB. PATHOG. 20:203-212(1996).
 CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
 CC BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
 CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
 CC RESPONSE TO AN INFLAMMATORY STIMULUS (BY SIMILARITY).
 CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 CC C-X-C) (CHEMOKINE CX-C).
 DR EMBL; S82598; G1699354; -
 DR PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
 KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 22
 FT CHAIN 23 101
 FT DISULFID 34 61 INTERLEUKIN-8.
 FT DISULFID 36 77 BY SIMILARITY.
 SQ SEQUENCE 101 AA; 11291 MW; 0E39C526 CRC32;
 Query Match 81.4%; Score 79; DB 1; Length 101;
 Best Local Similarity 58.3%; Pred. No. 1.10e-05;
 Matches 7; Conservative 4; Mismatches 1; Indels 0; Gaps 0;
 Db 75 EVCADPKRHWY 86
 QY 1 EICADPKRQKWQ 12
 RESULT 24
 ID IL8_RABIT STANDARD; PRT; 101 AA.
 AC P19874;
 DT 01-FEB-1991 (REL. 17, CREATED)
 DT 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
 DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
 DE INTERLEUKIN-8 PRECURSOR (IL-8) (NEUTROPHIL ATTRACTANT/ACTIVATION
 DE PROTEIN-1) (NAP-1) (PERMEABILITY FACTOR 1) (RP1).
 GN IL8.
 OS ORYCTOLAGUS CUNICULUS (RABBIT).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; LAGOMORPHA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX STRAIN-NEW ZEALAND WHITE; TISSUE-SPLEEN;
 RL MEDLINE; 91225489.
 RA YOSHIMURA T., YUHKI N.;
 RL J. IMMUNOL. 146:3483-3488(1991).
 RN [2]
 RP SEQUENCE OF 23-53.

RC STRAIN-NEW ZEALAND WHITE; TISSUE-PERITONEAL CAVITY;
 RX MEDLINE; 91058518.
 RA BEAUBIEN B.C., COLLINS P.D., JOSE P.J., TOTTY N.F., HSUAN J.,
 RA WATERFIELD M.D., WILLIAMS T.J.;
 RL BIOCHEM. J. 271:797-801(1990).
 CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
 CC BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
 CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
 CC RESPONSE TO AN INFLAMMATORY STIMULUS.
 CC -1- SUBUNIT: HOMODIMER.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 CC C-X-C) (CHEMOKINE CXCL).
 DR EMBL: M57439; G15553; -.
 DR PIR: S13052; S13052.
 DR HSSP: P10145; 31L8.
 DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
 KM CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 22
 FT CHAIN 23 101 INTERLEUKIN-8.
 FT DISULFID 34 61 BY SIMILARITY.
 FT DISULFID 36 77 BY SIMILARITY.
 FT CONFLICT 50 50 K -> I (IN REF. 2).
 SQ SEQUENCE 101 AA; 11402 MW; CB32CC30 CRC32; 2).

Query Match 81.4%; Score 79; DB 1; Length 101;
 Best Local Similarity 66.7%; Pred. No. 1.10e-05;
 Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 75 ELCADPKREKWO 86
 1:1 |||:1:1:1
 QY 1 EICADPKRKWIO 12

RESULT 25
 ID MCPL_MOUSE STANDARD; PRT; 148 AA.
 AC P10148;
 DT 01-MAR-1989 (REL. 10, CREATED)
 DT 01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (PLATELET-DERIVED
 DE GROWTH FACTOR-INDUCIBLE PROTEIN JE).
 GN SCY2 OR MCP1 OR JE.
 OS MUS MUSCULUS (MOUSE).
 OS EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUHETERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 89093129.
 RA KAWAHARA R.S., DEUEL T.F.;
 RL J. BIOL. CHEM. 264:679-682(1989).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 88234501.
 RA ROLLINS B.J., MORRISON E.D., STILES C.D.;
 RL PROC. NATL. ACADE. SCI. U.S.A. 85:3738-3742(1988).
 RN [3]
 RP SEQUENCE OF 26-42.
 RX MEDLINE; 91293127.
 RA VAN DAMME J., DECOCK B., BERTINI R., CONINGS R., LENAERTS J.-P.,
 RA PUT W., OPDEKARER G., MANTOVANI A.;
 RL EUR. J. BIOCHEM. 199:223-229(1991).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
 CC NEUTROPHILS.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
 CC -1- INDUCTION: BY PLATELET-DERIVED GROWTH FACTOR.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-X-C) (CHEMOKINE CC).
 DR EMBL: J04467; G387169; -.
 DR EMBL: M19681; G387168; -.
 DR PIR: A30209; A30209.
 DR PIR: A30861; A30861.
 DR PIR: S16226; S16226.
 DR HSSP: P13500; IMCA.

DR MGD; MGI:98259; SCY2.
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KM CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
 FT SIGNAL 1 23
 FT CHAIN 24 148 MONOCYTE CHEMOTACTIC PROTEIN 1.
 FT MOD_RES 24 24 PYROGLUTAMINE CARBOXYLIC ACID (BY
 FT DISULFID 34 59 SIMILARITY).
 FT DISULFID 35 75 BY SIMILARITY.
 FT CARBOHYD 126 126 BY SIMILARITY.
 SQ SEQUENCE 148 AA; 16326 MW; B572B8C CRC32; 2).

Query Match 80.4%; Score 78; DB 1; Length 148;
 Best Local Similarity 66.7%; Pred. No. 1.91e-05;
 Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 73 EVCADPKREKWO 84
 1:1 |||:1:1:1
 QY 1 EICADPKRKWIO 12

RESULT 26
 ID SDF1_MOUSE STANDARD; PRT; 89 AA.
 AC P40224;
 DT 01-FEB-1995 (REL. 31, CREATED)
 DT 01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
 DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
 DE STROMAL CELL-DERIVED FACTOR 1 PRECURSOR (SDF-1) (PRE-B CELL GROWTH
 DE STIMULATING FACTOR) (PBSF) (12-O-TETRADECANOLPHORBOL 13-ACETATE
 DE REPRESSED PROTEIN 1) (TPRAL) (THYMIC LYMPHOMA CELL STIMULATING FACTOR)
 DE (TISF).
 GN SDF1.
 OS MUS MUSCULUS (MOUSE).
 OS EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUHETERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 9418151.
 RA NAGASAWA T., KIKUTANI H., KISHIMOTO T.;
 RL PROC. NATL. ACADE. SCI. U.S.A. 91:2305-2309(1994).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 93342488.
 RA TASHIRO K., TADA H., HEILKER R., SHIROZU M., NAKANO T., HONJO T.;
 RL SCIENCE 261:600-603(1993).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 95073497.
 RA JIANG W., ZHOU P., KAHN S.M., TOMITA N., JOHNSON M.D.,
 RA WEINSTEIN I.B.;
 RL EXP. CELL RES. 215:284-293(1994).
 RN [4]
 RP SEQUENCE FROM N.A.
 RC STRAIN-AKR/J.
 RA NOMURA M., NAKATA Y., UZAWA A., NOSE M., AKASHI M., SUZUKI G.;
 RL SUBMITTED (DEC-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
 CC -1- FUNCTION: CHEMOATTRACTANT ACTIVE ON T-LYMPHOCYTES, MONOCYTES, BUT
 CC NOT NEUTROPHILS.
 CC -1- FUNCTION: STIMULATES THE PROLIFERATION OF BONE MARROW-DERIVED B
 CC PROGENITOR CELLS IN THE PRESENCE OF IL-7 AS WELL AS GROWTH OF THE
 CC STROMAL CELL-DEPENDENT B-CELL CLONE DW34 CELLS.
 CC -1- ALTERNATIVE PRODUCTS: TWO DIFFERENT FORMS (ALPHA AND BETA) ARE
 CC PROBABLY GENERATED BY ALTERNATIVE SPLICING.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 CC C-X-C) (CHEMOKINE CXCL).
 DR EMBL: D21072; G468457; -.
 DR EMBL: L12029; G393180; -.
 DR EMBL: L12030; G393182; -.
 DR EMBL: S74318; G786394; -.
 DR EMBL: D43804; G1304174; -.
 DR EMBL: D43805; G1304175; -.
 DR PIR: A53497; A53497.
 DR MGD; MGI:103556; SDF1.

DR PROSITE: PS00471: SMALL_CYTOKINES_CXC: FALSE NEG.
 KM CYTOKINE; CHEMOTAXIS; GROWTH FACTOR; SIGNAL; ALTERNATIVE SPLICING.
 FT SIGNAL 1 19
 FT CHAIN 89 POTENTIAL.
 FT DISULFID 30 55 STROMAL CELL-DERIVED FACTOR 1.
 FT DISULFID 32 71 BY SIMILARITY.
 FT VARSPLIC 89 89 K -> KRKM (TN FORM BETA).
 SQ SEQUENCE 89 AA: 10032 MW: 222CAE52 CRC32:
 Query Match 79.48; Score 77; DB 1; Length 89;
 Best Local Similarity 66.78; Pred. No. 3.30e-05;
 Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
 Db 69 QVCIDPKWKMIQ 80
 QY 1 EICADPKOKWKMIQ 12
 RESULT 27
 ID SDF1_HUMAN STANDARD; PRT; 93 AA.
 AC P48061;
 DT 01-FEB-1996 (REL. 33, CREATED)
 DT 01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE STROMAL CELL-DERIVED FACTOR 1 PRECURSOR (SDF-1) (PRE-B CELL GROWTH
 DE STIMULATING FACTOR) (PBSF).
 GN SDF1.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA SPOTILA L.D.;
 RL SUBMITTED (OCT-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 96039262.
 RA SHIROU M., MAKANO T., INAZAWA J., TASHIRO K., TADA H.,
 RA SHIMOHARA T., HONDO T.;
 RL GENOMICS 28:495-500(1995).
 RN [3]
 RP STRUCTURE BY NMR OF 22-88.
 RX MEDLINE: 98046030.
 RA CRUMP M.P., GONG J.H., LOETSCHER P., RAJARATHNAM K., AMARA A.,
 RA ARENZANA-SEISDEDOS F., VIRELIZIER J.L., BAGGIOLINI M., SYKES B.D.,
 RA CLARK-LEWIS I.;
 RL EMBO J. 16:6996-7007(1997).
 CC -1- FUNCTION: CHEMOTRACTANT ACTIVE ON T-LYMPHOCYTES, MONOCYTES, BUT
 CC NOT NEUTROPHILS.
 CC -1- ALTERNATIVE PRODUCTS: TWO DIFFERENT FORMS (ALPHA AND BETA) ARE
 CC PROBABLY GENERATED BY ALTERNATIVE SPLICING.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 CC C-X-C) (CHEMOKINE CXC).
 DR EMBL: U16752; G571508; -;
 DR EMBL: L36033; G1220366; -;
 DR PDB: 1SDF; 28-JAN-98.
 DR PDB: 2SDP; 17-JUN-98.
 DR MIM: 600835; -;
 DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; FALSE NEG.
 DR CYTOKINE; CHEMOTAXIS; GROWTH FACTOR; SIGNAL; ALTERNATIVE SPLICING;
 KM 3D-STRUCTURE.
 FT SIGNAL 1 19
 FT CHAIN 20 93 POTENTIAL.
 FT DISULFID 30 55 STROMAL CELL-DERIVED FACTOR 1.
 FT DISULFID 32 71
 SQ SEQUENCE 93 AA: 10666 MW: 4B9911C7 CRC32:
 Query Match 79.48; Score 77; DB 1; Length 93;
 Best Local Similarity 66.78; Pred. No. 3.30e-05;
 Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
 Db 69 QVCIDPKWKMIQ 80
 QY 1 EICADPKOKWKMIQ 12

QY 1 EICADPKOKWKMIQ 12
 RESULT 28
 ID M1A_MOUSE STANDARD; PRT; 92 AA.
 AC P10855; P14096;
 DT 01-JUL-1989 (REL. 11, CREATED)
 DT 01-APR-1990 (REL. 14, LAST SEQUENCE UPDATE)
 DT 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
 DE MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR (MIP-1-ALPHA) (TX-5)
 DE (SIS-ALPHA) (HEPARIN-BINDING CHEMOTAXIS PROTEIN) (U2G25B).
 GN SCY3 OR M1PA.
 OS MUS MUSCULUS (MOUSE)
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 88258380.
 RA DAVATELIS G., TERAMP-OLSON P., WOLPE S.D., HERMSEN K., LUEDKE C.,
 RA GALLEGOS C., COIT D., MERRYWEATHER J., CERAMI A.;
 RL J. EXP. MED. 167:1939-1944(1988).
 RN [2]
 RP REVISIONS.
 RA DAVATELIS G., TERAMP-OLSON P., WOLPE S.D., HERMSEN K., LUEDKE C.,
 RA GALLEGOS C., COIT D., MERRYWEATHER J., CERAMI A.;
 RL J. EXP. MED. 170:2189-2189(1989).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 89093958.
 RA BROWN K.D., ZURAWSKI S.M., MOSMANN T.R., ZURAWSKI G.;
 RL J. IMMUNOL. 142:679-687(1989).
 RN [4]
 RP SEQUENCE FROM N.A.
 RC STRAIN-DBA/2J;
 RX MEDLINE: 91016858.
 RA GROVE M., LOWE S., GRAHAM G., PRAGNELL I., PLUMB M.;
 RL NUCLEIC ACIDS RES. 18:5561-5561(1990).
 RN [5]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 89184547.
 RA KWON B.S., WEISSMAN S.M.;
 RL PROC. NATL. ACD. SCI. U.S.A. 86:1963-1967(1989).
 RN [6]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 91237116.
 RA WIDMER U., YANG Z., VAN DEVENTER S., MANOGUE K.R., SHERRY B.,
 RA CERAMI A.;
 RL J. IMMUNOL. 146:4031-4040(1991).
 RN [7]
 RP SEQUENCE OF 24-42.
 RX MEDLINE: 88154745.
 RA WOLPE S.D., DAVATELIS G., SHERRY B., BEUTLER B., HESSE D.G.,
 RA NGUYEN H.T., MOLDAMER L.L., NATHAN C.F., LOWRY S.F., CERAMI A.;
 RL J. EXP. MED. 167:570-581(1988).
 CC -1- FUNCTION: MONOKINE WITH INFLAMMATORY, PYROGENIC AND CHEMOKINETIC
 CC PROPERTIES. HAS A POTENT CHEMOTACTIC ACTIVITY FOR EOSINOPHILS.
 CC BINDING TO A HIGH-AFFINITY RECEPTOR ACTIVATES CALCIUM RELEASE IN
 CC NEUTROPHILS.
 CC -1- TISSUE SPECIFICITY: EXPRESSED IN LUNG, SPLEEN, AND PANCREAS.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL: M23447; G533241; -;
 DR EMBL: X12531; G531231; -;
 DR EMBL: X53372; G297531; -;
 DR EMBL: J04491; G201525; -;
 DR EMBL: M73061; G198695; -;
 DR PIR: A27596; A27596.
 DR PIR: A30552; A30552.
 DR PIR: A32393; A32393.
 DR PIR: S04533; S04533.
 DR PIR: S11685; S11685.
 DR HSSP: P13236; 1HDM.
 DR MGD: MGI:96260; SCY3.

DR PROSITE: PS00472: SMALL_CYTOKINES_CC: 1.
 KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 23
 FT CHAIN 24 92
 FT DISULFID 34 57
 FT DISULFID 35 73
 FT CONFLICT 22 22
 FT CONFLICT 62 62
 SQ SEQUENCE 92 AA: 10345 MW: 539795E CRC32;
 Query Match 76.3%; Score 74; DB 1; Length 92;
 Best Local Similarity 58.3%; Pred. No. 1.67e-04;
 Matches 7; Conservative 4; Mismatches 1; Indels 0; Gaps 0;
 Db 71 QICADPKOKWQ 82
 QY 1 EICADPKOKWQ 12
 RESULT 29
 ID MCP1_RAT STANDARD: PRT; 148 AA.
 AC P14844;
 DT 01-APR-1990 (REL. 14, CREATED)
 DT 01-APR-1990 (REL. 14, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (IMMEDIATE-EARLY
 DE SERUM-RESPONSIVE JE PROTEIN).
 GN SCY2 OR JE OR MCP1.
 OS EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUHERIA; RODENTIA.
 [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-WAG/RID; TISSUE-KIDNEY;
 RX MEDLINE: 90174947.
 RA TIMMERS H.T.H.M.; PRONK G.J.; BOS J.L.; VAN DER EB A.J.;
 RA NUCLEIC ACIDS RES. 18:23-34(1990).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 91128376.
 RA YOSHIMURA T.; TAKEYA M.; TAKAHASHI K.;
 RA BIOCHEM. BIOPHYS. RES. COMMUN. 174:504-509(1991).
 CC -1- SUBUNIT: MONOMER OR HOMODIMER. IN EQUILIBRIUM (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL: X17053; G55531; -;
 DR EMBL: M57441; G205334; -;
 DR PIR: J00128; J00128;
 DR PIR: S07723; S07723;
 DR HSSP: P13500; IMCA.
 DR PROSITE: PS00472: SMALL_CYTOKINES_CC: 1.
 KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
 FT SIGNAL 1 23
 FT CHAIN 24 148
 FT MOD_RES 24 24
 FT DISULFID 34 59
 FT DISULFID 35 75
 FT CARBOHYD 126 126
 FT CONFLICT 22 22
 SQ SEQUENCE 148 AA: 16460 MW: DB97F97C CRC32;
 Query Match 76.3%; Score 74; DB 1; Length 148;
 Best Local Similarity 66.7%; Pred. No. 1.67e-04;
 Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
 Db 73 EICADPKOKWQ 84
 QY 1 EICADPKOKWQ 12
 RESULT 30

ID MCP3_MOUSE STANDARD: PRT; 97 AA.
 AC Q03366;
 DT 01-OCT-1993 (REL. 27, CREATED)
 DT 01-OCT-1993 (REL. 27, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 3 PRECURSOR (MCP-3) (MONOCYTE
 DE CHEMOTACTICANT PROTEIN 3) (INTERCRINE/CHEMOKINE MNC) (FIC PROTEIN).
 GN SCY27 OR MCP3 OR FIC.
 OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUHERIA; RODENTIA.
 [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-MAST CELLS;
 RX MEDLINE: 93094785.
 RA KULMBURG P.A.; HUBER N.E.; SCHEER B.J.; WRANN M.; BAUMRUKER T.;
 RA J. EXP. MED. 176:1773-1778(1992).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 94271193.
 RA THIRION S.; NYS G.; FITEN P.; MASURE S.; VAN DAMME J.;
 RA OPDENAKKER G.;
 RA BIOCHEM. BIOPHYS. RES. COMMUN. 201:493-499(1994).
 RN [3]
 RP SEQUENCE FROM N.A.
 RA WERNER F.;
 RL SUBMITTED (JUN-1992) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [4]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 93204948.
 RA HEINRICH J.N.; RYSECK R.P.; MACDONALD-BRAVO H.; BRAVO R.;
 RA MOL. CELL. BIOL. 13:2020-2030(1993).
 RN [5]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 95081620.
 RA JARMIN D.I.; KULMBURG P.A.; HUBER N.E.; BAUMANN G.;
 RA PRIESHOFF-STRASSMAYR E.E.; BAUMRUKER T.;
 RL J. IMMUNOL. 153:5720-5729(1994).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND
 CC EOSINOPHILS, BUT NOT NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR
 CC ACTIVITY (BY SIMILARITY).
 CC -1- SUBUNIT: MONOMER (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL: Z12297; G57938; -;
 DR EMBL: L04694; G192926; -;
 DR EMBL: S71251; G547089; -;
 DR EMBL: X70058; G437873; -;
 DR PIR: S30592; S30592;
 DR HSSP: P13500; IMCA.
 DR MGD: MGI:99512; SCY27.
 DR PROSITE: PS00472: SMALL_CYTOKINES_CC: 1.
 KW CYTOKINE; CHEMOTAXIS; HEPARIN-BINDING; GLYCOPROTEIN; SIGNAL;
 KW INFLAMMATORY RESPONSE.
 FT SIGNAL 1 23
 FT CHAIN 24 97
 FT MOD_RES 24 24
 FT DISULFID 33 57
 FT DISULFID 34 73
 FT CARBOHYD 29 29
 FT CONFLICT 57 63
 FT CONFLICT 74 74
 SQ SEQUENCE 97 AA: 10999 MW: 682F557E CRC32;
 Query Match 75.3%; Score 73; DB 1; Length 97;
 Best Local Similarity 50.0%; Pred. No. 2.86e-04;
 Matches 6; Conservative 5; Mismatches 1; Indels 0; Gaps 0;
 Db 71 EVCABAHOKWYE 82
 QY 1 EICADPKOKWQ 12

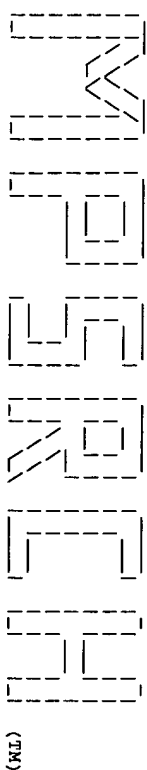
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Search completed: Thu Apr 1 07:41:44 1999
Job time : 7 secs.

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MPerch_pp protein - protein database search, using Smith-Waterman algorithm
Run on: Thu Apr 1 07:42:02 1999; MasPar time 5.02 Seconds
Tabular output not generated.

Title: >US-08-927-939-13
Description: (1-12) from US08927939.pep
Perfect Score: 97
Sequence: 1 EICADPKQKWIQ 12

Scoring table:
PAM 150
Gap 15

Searched: 180763 seqs, 55169189 residues

Post-processing: Minimum Match 0%
Listing first 100 summaries

Database:

sptrembl8
1:sp_archaea 2:sp_bacteria 3:sp_fungi 4:sp_human
5:sp_invertebrate 6:sp_mammal 7:sp_mhc 8:sp_organelle
9:sp_phase 10:sp_plant 11:sp_prodent 12:sp_unclassified
13:sp_vertebrate 14:sp_virus

Statistics: Mean 25.578; Variance 35.065; scale 0.729

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description	Pred. No.
1	79	81.4	395	11	035933	FRCTALKTINE.	1.26e-04
2	79	81.4	395	11	035188	NEUROFACIN.	1.26e-04
3	75	77.3	119	4	000175	MP1F-2.	9.50e-04
4	74	76.3	97	11	089093	CC CHEMOKINE ST38 PREC	1.56e-03
5	74	76.3	134	4	000585	BETA CHEMOKINE EXODUS-	2.57e-03
6	73	75.3	92	11	088430	CC CHEMOKINE ABCD-1.	6.85e-03
7	71	73.2	97	13	057411	LYMPHOTACTIN PRECURSOR	1.11e-02
8	70	72.2	80	4	014745	LD18 ALPHA BETA PRECUR	1.11e-02
9	70	72.2	95	4	099664	CHEMOKINE EXODUS.	1.11e-02
10	70	72.2	96	11	P97884	CC CHEMOKINE EXODUS.	1.11e-02
11	68	70.1	109	11	055038	B LYMPHOCYTE CHEMOTATR	2.91e-02
12	68	70.1	120	4	015467	IL-10-INDUCIBLE CHEMOK	4.68e-02
13	67	69.1	101	13	093238	CC CHEMOKINE-1.	7.51e-02
14	66	68.0	91	4	043646	RANTES PRECURSOR.	7.51e-02
15	65	68.0	97	6	062812	INTERLEUKIN-8 (FRAGMEN	1.20e-02
16	65	67.0	95	14	098158	ORF K6.	1.20e-02
17	65	67.0	397	4	P78423	CX3C CHEMOKINE PRECURS	1.20e-01
18	64	66.0	93	4	000626	MACROPHAGE-DERIVED CHE	1.91e-01
19	64	66.0	133	11	009002	SMALL INDUCIBLE CYTOKI	1.91e-01
20	64	66.0	133	11	009006	BETA CHEMOKINE EXODUS-	1.91e-01

21	64	66.0	760	3	099126	CHITIN SYNTHETASE I.	1.91e-01
22	62	63.9	109	4	043927	CXC CHEMOKINE PRECURSO	4.77e-01
23	60	61.9	1053	3	084834	RIBONUCLEOSIDE REDUCTA	1.17e+00
24	59	60.8	399	14	068409	ORF U154.	1.82e+00
25	58	59.8	522	5	061090	SHRINE RICH PROTEIN HO	2.83e+00
26	58	59.8	982	5	093290	HYPOTHETICAL PROTEIN C	4.36e+00
27	57	58.8	187	2	083516	HYPOTHETICAL 21.4 KD P	4.36e+00
28	57	58.8	203	14	067634	ECO Q PROTEIN (FRAGMEN	4.36e+00
29	57	58.8	1224	5	P91309	CODED FOR BY C. ELEGAN	4.36e+00
30	56	57.7	95	2	P70808	ADP BINDING PROTEIN (F	6.70e+00
31	56	57.7	307	10	065737	BETA-GALACTOSIDASE (EC	6.70e+00
32	56	57.7	720	10	065736	BETA-GALACTOSIDASE (EC	6.70e+00
33	55	56.7	108	11	070460	EEL-1 LIGAND CHEMOKINE	1.02e+01
34	55	56.7	178	2	031562	XYIT PROTEIN.	1.02e+01
35	55	56.7	182	10	023536	RESISTANCE GENE HOMOLO	1.02e+01
36	55	56.7	282	2	P96965	2-HYDROXY-6-OXO-7-METH	1.02e+01
37	55	56.7	859	14	097013	ENVELOPE GLYCOPROTEIN	1.02e+01
38	55	56.7	1361	10	004264	DOWNY MILDEN RESISTANC	1.02e+01
39	54	55.7	104	13	073912	KO PROTEIN PRECURSOR.	1.56e+01
40	54	55.7	208	2	056669	MANNOSE-SENSITIVE HEMA	1.56e+01
41	54	55.7	552	5	046178	RADIAL SPOKHEAD.	1.56e+01
42	54	55.7	770	5	060999	CUIA.	1.56e+01
43	54	55.7	26926	4	010466	TITIN, HEART ISOFORM N	1.56e+01
44	53	54.6	95	14	075362	ENVELOPE GLYCOPROTEIN	2.35e+01
45	53	54.6	117	10	042317	BETA GALACTOSIDASE (FR	2.35e+01
46	53	54.6	143	2	050035	U2266J.	2.35e+01
47	53	54.6	145	2	P74671	HYPOTHETICAL 16.6 KD P	2.35e+01
48	53	54.6	248	10	081404	1-AMINOCYCLOPROPANE-1-	2.35e+01
49	53	54.6	350	3	006151	CHROMOSOME XII COSMID	2.35e+01
50	53	54.6	397	3	012123	ORF62SP.	2.35e+01
51	53	54.6	466	10	082719	ACC SYNTHASE (EC 4.4.1	2.35e+01
52	53	54.6	491	10	043747	1-AMINOCYCLOPROPANE-1-	2.35e+01
53	53	54.6	497	10	042610	1-AMINOCYCLOPROPANE-1-	2.35e+01
54	53	54.6	852	10	023243	BETA-GALACTOSIDASE.	2.35e+01
55	53	54.6	853	10	042150	BETA-GALACTOSIDASE LIK	2.35e+01
56	53	54.6	949	5	P90956	T01D3.3. PROTEIN.	2.35e+01
57	53	54.6	991	10	080820	RNA POLYMERASE.	2.35e+01
58	53	54.6	2919	14	085431	14 (HRV-14) RNA SEQUEN	3.53e+01
59	52	53.6	146	14	084776	TYPE 14 (HRV14), COMPL	3.53e+01
60	52	53.6	146	14	084738	HI1054 HOMOLOG (FRAGME	3.53e+01
61	52	53.6	172	2	051136	ENVELOPE GLYCOPROTEIN	3.53e+01
62	52	53.6	202	14	089996	ENVELOPE GLYCOPROTEIN	3.53e+01
63	52	53.6	475	4	060646	HYPOTHETICAL 53.8 KD P	3.53e+01
64	52	53.6	724	10	081100	BETA-GALACTOSIDASE (EC	3.53e+01
65	52	53.6	825	2	P73065	HYPOTHETICAL 92.5 KD P	3.53e+01
66	52	53.6	841	5	024032	COROSCREW PROTEIN Y122	3.53e+01
67	52	53.6	852	14	073303	ENVELOPE GLYCOPROTEIN.	3.53e+01
68	52	53.6	1589	5	045569	P54F11.2.	3.53e+01
69	52	53.6	1825	5	061210	HI9M22.1 PROTEIN (FRAG	3.53e+01
70	52	53.6	1872	11	P70208	PLEXIN 3.	3.53e+01
71	52	53.6	2276	4	075050	KRAA0462 PROTEIN (FRAG	3.53e+01
72	51	52.6	71	7	031525	MHC CLASS IA (FRAGMENT	5.27e+01
73	51	52.6	94	14	076035	ENVELOPE GLYCOPROTEIN	5.27e+01
74	51	52.6	100	14	040501	ENVELOPE GLYCOPROTEIN	5.27e+01
75	51	52.6	188	5	045136	COSMID ZC8.	5.27e+01
76	51	52.6	215	3	000843	PLASMA CELL MEMBRANE G	5.27e+01
77	51	52.6	257	11	088827	COSMID ZC8.	5.27e+01
78	51	52.6	306	5	023084	ACAB PROTEIN.	5.27e+01
79	51	52.6	388	1	051797	HYPOTHETICAL 66.1 KD P	5.27e+01
80	51	52.6	573	2	025431	RNA POLYMERASE II LARG	5.27e+01
81	51	52.6	629	9	P91819	BETA-GALACTOSIDASE (EC	5.27e+01
82	51	52.6	733	10	082670	KRAA0539 PROTEIN.	5.27e+01
83	51	52.6	822	4	060287	MCC2 BETA.	5.27e+01
84	51	52.6	889	4	075075	MCC2 ALPHA.	5.27e+01
85	51	52.6	899	4	013527	PROHORMONE CONVERTASE	5.27e+01
86	51	52.6	915	4	092824	P66A PROTEASE.	5.27e+01
87	51	52.6	1038	10	023532	RESISTANCE GENE.	5.27e+01
88	51	52.6	1072	5	026157	V-SEEA 5.	5.27e+01
89	51	52.6	1231	5	026153	V-SEEA 4.	5.27e+01
90	51	52.6	1422	10	023533	RESISTANCE GENE HOMOLO	7.88e+01
91	51	52.6	1466	5	045847	777C3.3.	7.88e+01
92	50	51.5	332	1	028318	PYRUVATE FORMATE-LYASE	7.83e+01
93	50	51.5	332	1	028318	PYRUVATE FORMATE-LYASE	7.83e+01

94 50 51.5 348 3 074739 CONSERVED HYPOTHETICAL
 95 50 51.5 363 7 095394 MHC CLASS I PROTEIN MO 7.83e+01
 96 50 51.5 445 10 023034 SIMILAR TO CAENORHABDI 7.83e+01
 97 50 51.5 541 5 017941 C12D8.10A. 7.83e+01
 98 50 51.5 546 5 017942 C12D8.10B. 7.83e+01
 99 50 51.5 860 14 093091 ENVELOPE GLYCOPROTEIN. 7.83e+01
 100 50 51.5 874 5 018109 SIMILAR TO THE ACTIN-B 7.83e+01

ALIGNMENTS

RESULT 1
 ID 035933 PRELIMINARY; PRT: 395 AA.
 AC 035933:
 DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
 DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE FRACTALKINE.
 OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
 OC SCIROGNATHI; MORIDAE; MORINAE; MUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-BALB/C; TISSUE-BRAIN;
 RA ROSSI D., HARDMAN G., COPELAND N., GILBERT D.J., JENKINS N.,
 RA ZLOTNIK A., BAZAN J.F.,
 RL SUBMITTED (MAR-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: U92565; G2459677; -
 DR PFAM: PF00048; 118; 1.
 SQ SEQUENCE 395 AA; 42040 MW; 3997A113 CRC32;

Query Match 81.4%; Score 79; DB 11; Length 395;
 Best Local Similarity 72.7%; Pred. No. 1.26e-04;
 Matches 8; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 73 FCADPKRWQ 83
 QY 2 ICADPKRWQ 12
 :|||||:|:|

RESULT 2
 ID 035188 PRELIMINARY; PRT: 395 AA.
 AC 035188:
 DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
 DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE NEUTROACTIN.
 GN SCYD1.
 OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
 OC SCIROGNATHI; MORIDAE; MORINAE; MUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 97320499.
 RA PAN Y., CLARE L., HONG Z., DOLICH S., DEEDS J., GONZALO J., VATH J.,
 RA GOSSELIN M., MA J., DUSSAULT B., WOLF B., ALPERIN A., CULPEPPER J.,
 RA CUTLERREZ-RAMOS J.C., GEARING D.,
 RT "Neurotactin, a membrane-anchored chemokine upregulated in brain
 RT inflammation."
 RL NATURE 387:611-617(1997).
 DR EMBL: AF010586; G2317698; -
 DR MGD: MGI:1097153; SCYD1.
 DR PFAM: PF00048; 118; 1.
 SQ SEQUENCE 395 AA; 42098 MW; E3CD0612 CRC32;

Query Match 81.4%; Score 79; DB 11; Length 395;
 Best Local Similarity 72.7%; Pred. No. 1.26e-04;
 Matches 8; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 73 FCADPKRWQ 83
 QY 2 ICADPKRWQ 12
 :|||||:|:|

RESULT 3
 ID 000175 PRELIMINARY; PRT: 119 AA.
 AC 000175:
 DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
 DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE MPF-2.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
 OC CATARRHINI; HOMINIDAE; HOMO.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA PATEL V.P., KREIDER B.L., LI Y., LI H., LEUNG K., SALCEDO T.,
 RA NARDELLI B., PIPPALIA V., GENTZ S., THOTAKURA R., PARMELEE D.,
 RA GENTZ R., GAOTTA G.,
 RL J. EXP. MED. 0:0-0(0).
 DR EMBL: U85768; G1916252; -
 DR PFAM: PF00048; 118; 1.
 SQ SEQUENCE 119 AA; 13119 MW; CDF526F0 CRC32;

Query Match 77.3%; Score 75; DB 4; Length 119;
 Best Local Similarity 58.3%; Pred. No. 9.50e-04;
 Matches 7; Conservative 4; Mismatches 1; Indels 0; Gaps 0;

Db 72 QPCGDPKRWQ 83
 QY 1 ICADPKRWQ 12
 :|:|:|:|:|

RESULT 4
 ID 089093 PRELIMINARY; PRT: 97 AA.
 AC 089093:
 DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE CC CHEMOKINE ST38 PRECURSOR.
 GN LARC.
 OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
 OC RODENTIA; SCIROGNATHI; MORIDAE; MORINAE; MUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA UTMANS-SCHWEITZ U., LOREZ H., KLINKERT W.E.F., DA SILVA J.,
 RA LESSLAVER W.,
 RT "A novel rat CC chemokine, identified by targeted differential
 RT display, is upregulated in brain inflammation."
 RL J. NEUROIMMUNOL. 0:0-0(1998).
 RN [2]
 RP SEQUENCE FROM N.A.
 RA VILLARES R.,
 RL SUBMITTED (JUL-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: AF053313; G3551819; -
 DR EMBL: AJ007862; E1312757; -
 KW SIGNAL.
 FT SIGNAL. 1 27 POTENTIAL.
 FT CHAIN 28 97 CC CHEMOKINE ST38.
 SQ SEQUENCE 97 AA; 10826 MW; 053405BD CRC32;

Query Match 76.3%; Score 74; DB 11; Length 97;
 Best Local Similarity 70.0%; Pred. No. 1.56e-03;
 Matches 7; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 74 VCADPKRWQ 83
 QY 2 ICADPKRWQ 11
 :|:|:|:|:|

RESULT 5
 ID 000585 PRELIMINARY; PRT: 134 AA.
 AC 000585:
 DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
 DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)

DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE BETA CHEMOKINE EXODUS-2.
 OC HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
 CC CATARRHINI; HOMINIDAE; HOMO.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA HROMAS R.A., GRAV P., KLEMSZ M., FIFE K., BROCKMEYER H.;
 RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 97400322.
 RA HEDRICK J.A., ZLOTNIK A.;
 RT "Identification and characterization of a novel beta chemokine
 containing six conserved cysteines."
 RL J. IMMUNOL. 159:1589-1593(1997).
 RN [3]
 RP SEQUENCE FROM N.A.
 RA HEDRICK J.A., ZLOTNIK A.;
 RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [4]
 RP SEQUENCE FROM N.A.
 RA NAGIRA M., IMAI T., HIESHIMA K., KUSUDA J., RIDANPAA M., TAKAGI S.,
 RA NISHIMURA M., KATIZAKI M., NOMIYAMA H., YOSHIE O.;
 RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: U88320; G2196920; -.
 DR EMBL: AF001979; G2624925; -.
 DR EMBL: AB002409; D1022673; -.
 DR PFAM: PF00048; 118; 1.
 SQ SEQUENCE 134 AA; 14646 MW; FE86A239 CRC32;

Query Match 76.3%; Score 74; DB 4; Length 134;
 Best Local Similarity 66.7%; Pred. No. 1.56e-03;
 Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 73 EICADPKRWQ 84
 Qy 1 EICADPKRWQ 12

RESULT 6 PRELIMINARY: PRT: 92 AA.
 ID 088430
 AC 088430.
 DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE CC CHEMOKINE ABCD-1.
 OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
 CC RODENTIA; SCIUROGNATHI; MORIDAE; MORINAE; MUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-LIVER;
 RX MEDLINE: 98353531.
 RA SCHANIEL C., PARDALI E., SALLUSTO F., SPELETAS M., RUDEL C.,
 RA SHIMIZU T., SEIDL T., ANDERSSON J., MELCHERS F., ROLINK A.G.,
 RA SIDERAS P.;
 RT "Activated murine B lymphocytes and dendritic cells produce a novel
 CC chemokine which acts selectively on activated T cells."
 RL J. EXP. MED. 188:451-463(1998).
 DR EMBL: AF052505; G3378116; -.
 SQ SEQUENCE 92 AA; 10302 MW; BC7219A0 CRC32;

Query Match 75.3%; Score 73; DB 11; Length 92;
 Best Local Similarity 63.6%; Pred. No. 2.57e-03;
 Matches 7; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 74 DICADPROVW 84
 Qy 1 EICADPKRWQ 11

RESULT 7

ID 057411 PRELIMINARY: PRT: 97 AA.
 AC 057411;
 DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
 DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
 DT 01-JUN-1998 (TREMBLREL. 06, LAST ANNOTATION UPDATE)
 DE LYMPHOTACTIN PRECURSOR.
 OS GALUS GALLUS (CHICKEN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ARCHOSAURIA; AVES;
 CC NEOGNATHAE; GALLIFORMES; PHASIANIDAE; PHASIANINAE; GALLUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-SPLEEN;
 RA ROSSI D.L., BAZAN J.F., ZLOTNIK A.;
 RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: AF006742; G2827882; -.
 KW SIGNAL.
 FT SIGNAL 1 24 POTENTIAL.
 FT CHAIN 25 97 LYMPHOTACTIN.
 SQ SEQUENCE 97 AA; 11131 MW; 3290101C CRC32;

Query Match 73.2%; Score 71; DB 13; Length 97;
 Best Local Similarity 63.6%; Pred. No. 6.85e-03;
 Matches 7; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Db 72 ICVHPEQKWQ 82
 Qy 2 ICADPKRWQ 12

RESULT 8 PRELIMINARY: PRT: 80 AA.
 ID 014745
 AC 014745.
 DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
 DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
 DT 01-NOV-1996 (TREMBLREL. 01, LAST ANNOTATION UPDATE)
 DE LD78 ALPHA BETA PRECURSOR (FRAGMENT).
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
 CC CATARRHINI; HOMINIDAE; HOMO.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-BRAIN;
 RA ISHIZUKA K., IGATA-YI R., NARUSE K., NAKASHIMA H., OUCHI K.,
 RA KATSURAGI S., KIN Y., OHMOTO Y., NOMIYAMA H., ITO M., MIURA R.,
 RA MIYAKAWA T.;
 RL SUBMITTED (AUG-1995) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: D63785; G961440; -.
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 DR PFAM: PF00048; 118; 1.
 KW SIGNAL.
 FT NON_TER 1 1
 FT SIGNAL <1 16 POTENTIAL.
 FT CHAIN 17 >80 LD78 ALPHA BETA.
 FT NON_TER 80 80
 SQ SEQUENCE 80 AA; 8857 MW; 3F87F1C6 CRC32;

Query Match 72.2%; Score 70; DB 4; Length 80;
 Best Local Similarity 50.0%; Pred. No. 1.11e-02;
 Matches 6; Conservative 4; Mismatches 2; Indels 0; Gaps 0;

Db 65 QVCADPSEWQ 76
 Qy 1 EICADPKRWQ 12

RESULT 9 PRELIMINARY: PRT: 95 AA.
 ID 099664
 AC 099664.
 DT 01-MAY-1997 (TREMBLREL. 03, CREATED)
 DT 01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE CHEMOKINE EXODUS.
 OS HOMO SAPIENS (HUMAN).

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OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-C57BL/6J;
RX MEDLINE: 98146056.
RA GUNN M.D., NGO V.N., ANSEL K.M., EKLAND E.H., CYSTER J.G.,
RA WILLIAMS L.T.;
RT "A B-cell-homing chemokine made in lymphoid follicles activates
RL BURKITT'S lymphoma receptor-1."
DR EMBL: AF044196; G2911374;
SQ SEQUENCE 109 AA; 11927 MW; BB6CC22 CRC32;

Query Match 70.1%; Score 68; DB 11; Length 109;
Best Local Similarity 54.5%; Pred. No. 2.91e-02;
Matches 6; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 74 ICVNPRAKIQ 84
QY 2 ICADPKOKMI 12

RESULT 12
ID 015467 PRELIMINARY; PRT; 120 AA.
AC 015467;
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE IL-10-INDUCIBLE CHEMOKINE.
GN IL10K OR SCY16.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RA HEDRICK J.A., HELMS A., GORMAN D., ZLOTNIK A.;
RL SUBMITTED (NOV-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE-LIVER;
RA SHODAI K., HISHIMA K., FUKUDA S., IIO M., MIDRA R., IMAI T.,
RA YOSHIE O., NOMIYAMA H.;
RL BIOCHIM. BIOPHYS. ACTA 0:0-0(1998).
RN [3]
RP SEQUENCE FROM N.A.
RA NOMIYAMA H.;
RL "Structure of a region of 181 kb containing five CC chemokine genes."
RN [4]
RP SEQUENCE FROM N.A.
RX MEDLINE: 98308096.
RA YOUN B.S., ZHANG S., BROXMEYER H.E., ANTOL K., FRASER M.J. JR.,
RA HANGOC G., KWON B.S.;
RT "Isolation and characterization of LMC, a novel lymphocyte and
RT monocytic chemoattractant human CC chemokine, with myelosuppressive
RT activity."
RL BIOCHEM. BIOPHYS. RES. COMMUN. 247:217-222(1998).
DR EMBL: U91746; G2581781;
DR EMBL: AB007454; D1024963;
DR EMBL: AF088219; G3719365;
DR EMBL: AF054467; G3395776;
DR PRAM: PF00048; 118; 1.
KW SIGNAL.
SQ SEQUENCE 120 AA; 13600 MW; A079DF66 CRC32;

Query Match 72.2%; Score 70; DB 4; Length 95;
Best Local Similarity 60.0%; Pred. No. 1.11e-02;
Matches 6; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 72 VCANPKQTV 81
QY 2 ICADPKOKMI 11

RESULT 10
ID P97884 PRELIMINARY; PRT; 96 AA.
AC P97884;
DT 01-MAY-1997 (TREMBLREL. 03, CREATED)
DT 01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CC CHEMOKINE EXODUS.
OS RATTUS NORVEGICUS (RAT).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCIUROGNATHI; MURIDAE; MURINAE; RATTUS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-SPRAGUE-DAWLEY;
RA KLINER G.S., MACIEJEWSKI-LENOIR D., LEE E.D., MAKI R.A.;
RL SUBMITTED (FEB-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RC STRAIN-FISHER 344; TISSUE-BRAIN;
RA UTSCHLAUER W.;
RA UTSCHLAUER W., LOREZ H., KLINKERT W.E.F., DA SILVA J.,
RT "A novel rat CC chemokine, identified by targeted differential
RT display, is upregulated in brain inflammation."
RL J. NEUROIMMUNOL. 0:0-0(1998).
DR EMBL: U90447; G1899246;
DR EMBL: AF053312; G3551817;
DR PRAM: PF00048; 118; 1.
KW SIGNAL.
SQ SEQUENCE 96 AA; 10875 MW; 3FC09DD8 CRC32;

Query Match 72.2%; Score 70; DB 11; Length 96;
Best Local Similarity 70.0%; Pred. No. 1.11e-02;
Matches 7; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 73 VCADPKQIIV 82
QY 2 ICADPKOKMI 11

RESULT 11
ID 055038 PRELIMINARY; PRT; 109 AA.
AC 055038;
DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE B LYMPHOCYTE CHEMOATTRACTANT BLC.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCIUROGNATHI; MURIDAE; MURINAE; MUS.

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RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-C57BL/6J;
RX MEDLINE: 98146056.
RA GUNN M.D., NGO V.N., ANSEL K.M., EKLAND E.H., CYSTER J.G.,
RA WILLIAMS L.T.;
RT "A B-cell-homing chemokine made in lymphoid follicles activates
RL BURKITT'S lymphoma receptor-1."
DR EMBL: AF044196; G2911374;
SQ SEQUENCE 109 AA; 11927 MW; BB6CC22 CRC32;

Query Match 70.1%; Score 68; DB 11; Length 109;
Best Local Similarity 54.5%; Pred. No. 2.91e-02;
Matches 6; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 74 ICVNPRAKIQ 84
QY 2 ICADPKOKMI 12

RESULT 12
ID 015467 PRELIMINARY; PRT; 120 AA.
AC 015467;
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE IL-10-INDUCIBLE CHEMOKINE.
GN IL10K OR SCY16.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RA HEDRICK J.A., HELMS A., GORMAN D., ZLOTNIK A.;
RL SUBMITTED (NOV-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE-LIVER;
RA SHODAI K., HISHIMA K., FUKUDA S., IIO M., MIDRA R., IMAI T.,
RA YOSHIE O., NOMIYAMA H.;
RL BIOCHIM. BIOPHYS. ACTA 0:0-0(1998).
RN [3]
RP SEQUENCE FROM N.A.
RA NOMIYAMA H.;
RL "Structure of a region of 181 kb containing five CC chemokine genes."
RN [4]
RP SEQUENCE FROM N.A.
RX MEDLINE: 98308096.
RA YOUN B.S., ZHANG S., BROXMEYER H.E., ANTOL K., FRASER M.J. JR.,
RA HANGOC G., KWON B.S.;
RT "Isolation and characterization of LMC, a novel lymphocyte and
RT monocytic chemoattractant human CC chemokine, with myelosuppressive
RT activity."
RL BIOCHEM. BIOPHYS. RES. COMMUN. 247:217-222(1998).
DR EMBL: U91746; G2581781;
DR EMBL: AB007454; D1024963;
DR EMBL: AF088219; G3719365;
DR EMBL: AF054467; G3395776;
DR PRAM: PF00048; 118; 1.
KW SIGNAL.
SQ SEQUENCE 120 AA; 13600 MW; A079DF66 CRC32;

Query Match 70.1%; Score 68; DB 4; Length 120;
Best Local Similarity 41.7%; Pred. No. 2.91e-02;
Matches 5; Conservative 6; Mismatches 1; Indels 0; Gaps 0;

Db 74 EVCNPDNDVQ 85
QY 1 EICADPKOKMI 12

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RESULT 13
ID 093238; PRELIMINARY; PRT; 101 AA.
AC 093238;
DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CC CHEMOKINE-1.
OS CYPRINUS CARPIO (COMMON CARP).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ACTINOPTERYGII; NEOPTERYGII;
OC TELEOSTEI; EUTELEOSTEI; OSTARIOPHYSI; CYPRINIFORMES; CYPRINOIDEA;
OC CYPRINIDAE; CYPRININAE; CYPRINUS.
RN [1]
RP SEQUENCE FROM N.A.
RA FUJIKI K., NAKAO M., SHIN D., YANO T.;
RT "CDNA cloning of a carp CC chemokine homologous to mammalian
   eotaxins."
RL SUBMITTED (JAN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AB010469; D1032417; -.
SQ SEQUENCE 101 AA; 11266 MW; 9CFBD540 CRC32;

Query Match
Best Local Similarity 54.5%; Score 67; DB 13; Length 101;
Matches 6; Conservative 4; Mismatches 1; Indels 0; Gaps 0;

Db 72 EHCSDPKRLRV 82
QY 1 EICADPKRWIQ 11

RESULT 14
ID 043646; PRELIMINARY; PRT; 91 AA.
AC 043646;
DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE RANTES PRECURSOR.
GN SCY5.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RA JANG J.S., KIM B.E.;
RL SUBMITTED (JAN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RA NOMIYAMA H.;
RT "Structure of a region of 181 kb containing five CC chemokine genes."
RL SUBMITTED (AUG-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AF043341; G2905632; -.
DR EMBL: AF088219; G3719366; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW SIGNAL.
RN [4]
FT SIGNAL. 1 23 POTENTIAL.
FT CHAIN 24 91 RANTES.
SQ SEQUENCE 91 AA; 9990 MW; CF404FAD CRC32;

Query Match
Best Local Similarity 41.7%; Score 66; DB 4; Length 91;
Matches 5; Conservative 5; Mismatches 2; Indels 0; Gaps 0;

Db 71 QVCANPEKKVVR 82
QY 1 EICADPKRWIQ 12

RESULT 15
ID 062812; PRELIMINARY; PRT; 97 AA.
AC 062812;
DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
DT 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 (FRAGMENT).

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GN IL-8
OS EQUUS CABALLUS (HORSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
OC PERISSODACTYLA; EQUIDAE; EQUUS.
RN [1]
RP SEQUENCE FROM N.A.
RA TISSUE-BRONCHOALVEOLAR TISSUE;
RA FRANCHINI M.;
RL SUBMITTED (APR-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AF062377; G3126973; -.
FT NON TER 97
SQ SEQUENCE 97 AA; 10742 MW; 00396FBF CRC32;

Query Match
Best Local Similarity 50.0%; Score 66; DB 6; Length 97;
Matches 6; Conservative 3; Mismatches 3; Indels 0; Gaps 0;

Db 75 ENCLNPHTKWVO 86
QY 1 EICADPKRWIQ 12

RESULT 16
ID 098158; PRELIMINARY; PRT; 95 AA.
AC 098158; 012569;
DT 01-FEB-1997 (TREMBLREL. 02, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE ORF K6.
OS KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS.
OC VIRUSES; DSDNA VIRUSES, NO RNA STAGE; HERPESVIRIDAE;
OC GAMMAHERPESVIRINAE; RHADINOVIRUS.
RN [1]
RP SEQUENCE FROM N.A.
RA MOORE P.S., BASHOFF C., WEISS R.A., CHANG Y.;
RT "Molecular mimicry of human cytokine and cytokine response pathway
   genes by KSHV."
RL SCIENCE 274:1739-1744(1996).
RN [2]
RP SEQUENCE FROM N.A.
RA MEDLINE: 97121480.
RA RUSSO J.J., BOHENKY R.A., CHEN M.C., CHEN J., YAN M., MADDALENA D.,
RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
RT "Nucleotide sequence of the Kaposi sarcoma-associated herpesvirus
   (HHV8)."
RL PROC. NATL. ACADE. SCI. U.S.A. 93:14862-14867(1996).
RN [3]
RP SEQUENCE FROM N.A.
RA RUSSO J.J., BOHENKY R.A., CHEN M.C., CHEN J., YAN M., MADDALENA D.,
RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
RL SUBMITTED (OCT-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [4]
RP SEQUENCE FROM N.A.
RA NICHOLAS J., ROVOLO V.R., BURNS W.H., SANDFORD G., WAN X., CIUFFO D.,
RA HENDRICKSON S., GOO H.G., HAYWARD G.S., REITZ M.S.;
RL SUBMITTED (NOV-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [5]
RP SEQUENCE FROM N.A.
RA RUSSO J.J., BOHENKY R.A., CHEN M.C., CHEN J., YAN M., MADDALENA D.,
RA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [6]
RP SEQUENCE FROM N.A.
RA MEDLINE: 97296220.
RA NEIPPEL F., ALBRECHT J.C., FLECKENSTEIN B.;
RT "Cell-homologous genes in the Kaposi's sarcoma-associated rhadinovirus
   human herpesvirus 8: determinants of its pathogenicity?";
RL J. VIROL. 71:4187-4192(1997).
RN [7]
RP SEQUENCE FROM N.A.
RA SUN R., LIN S.-F., MILLER G.;
RL SUBMITTED (SEP-1996) TO EMBL/GENBANK/DBJ DATA BANKS.

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DR EMBL: U75698; G1718266; -
 DR EMBL: U74585; G1558273; -
 DR EMBL: U93872; G2246346; -
 DR EMBL: U71366; G3551763; -
 DR PFAM: PF00048; 118; 1.
 KW HYPOTHETICAL PROTEIN.
 SQ SEQUENCE 95 AA; 10485 MW; 5283348D CRC32;

Query Match 67.0%; Score 65; DB 14; Length 95;
 Best Local Similarity 50.0%; Pred. No. 1.20e-01;
 Matches 6; Conservative 4; Mismatches 2; Indels 0; Gaps 0;

Db 74 EICADPKKMWV 85
 :|||||:|:
 QY 1 EICADPKKMWIQ 12

RESULT 17
 ID P78423 PRELIMINARY; PRT; 397 AA.

AC 01-MAY-1997 (TREMBLREL. 03, CREATED)
 DT 01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)
 DE 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE CX3C CHEMOKINE PRECURSOR.
 GN A-152E5.2.

OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
 OC CATARRHINI; HOMINIDAE; HOMO.
 RN [1]
 RP SEQUENCE FROM N.A.

RA BAZAN J.F., BACON K.B., HARDMAN G., WANG W., SOO K., ROSSI D.,
 RA GREAVES D.R., ZLOTNIK A., SCHALL T.J.;
 RT "A new class of membrane-bound chemokine with a CX3C motif."
 RT NATURE 385:640-644(1997).
 RN [2]
 RP SEQUENCE FROM N.A.

RA ADAMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRMANN J., MASON T.M.,
 RA BRANDON R., KIM U.J., KERLAVAGE A.R., VENTER J.C.;
 RT "Homo sapiens Chromosome 16 BAC clone C1987SK-A-152E5."
 RT SUBMITTED (JUN-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
 DR EMBL: U91835; G1899259; -
 DR EMBL: U84487; G1888523; -
 DR EMBL: AC004382; G3252821; -
 DR PFAM: PF00048; 118; 1.

DR SIGNAL.
 KW SIGNAL.
 FT CHAIN 25 397 POTENTIAL.
 FT CHAIN 25 397 CX3C CHEMOKINE.
 SQ SEQUENCE 397 AA; 42202 MW; C8093D7D CRC32;

Query Match 67.0%; Score 65; DB 4; Length 397;
 Best Local Similarity 60.0%; Pred. No. 1.20e-01;
 Matches 6; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 73 FCADPKKMWV 82
 :|||||:|:
 QY 2 ICADPKKMWI 11

RESULT 18
 ID 000626 PRELIMINARY; PRT; 93 AA.

AC 000626:
 DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
 DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
 DE 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE MACROPHAGE-DERIVED CHEMOKINE PRECURSOR.
 GN MDC OR A-152E5.1.

OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
 OC CATARRHINI; HOMINIDAE; HOMO.
 RN [1]
 RP SEQUENCE FROM N.A.

RA GODISKA R., CHANTRY D., RAPORT C.J., SOZZANI S., ALLAVENA P.,

RA MANTOVANI A., GRAY P.W.;
 RL J. EXP. MED. 185:0-0(0).
 RN [2]
 RP SEQUENCE FROM N.A.
 RA CHANG M.S., MCNINCH J., ELIAS III C., MANTHEY C.L., GROSSHANS D.,
 RA MENG T., BOONE T., ANDREW D.P.;
 RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
 RN [3]
 RP SEQUENCE FROM N.A.

RA ADAMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRMANN J., MASON T.M.,
 RA BRANDON R., KIM U.J., KERLAVAGE A.R., VENTER J.C.;
 RT "Homo sapiens Chromosome 16 BAC clone C1987SK-A-152E5."
 RT SUBMITTED (JUN-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
 DR EMBL: U83171; G1931581; -
 DR EMBL: U83239; G2062425; -
 DR EMBL: AC004382; G3252820; -
 DR PFAM: PF00048; 118; 1.

DR SIGNAL.
 KW SIGNAL.
 FT CHAIN 25 93 POTENTIAL.
 FT CHAIN 25 93 MACROPHAGE-DERIVED CHEMOKINE.
 SQ SEQUENCE 93 AA; 10580 MW; 65EA63D2 CRC32;

Query Match 66.0%; Score 64; DB 4; Length 93;
 Best Local Similarity 63.6%; Pred. No. 1.91e-01;
 Matches 7; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 74 EICADPKKMWV 84
 :|||||:|:
 QY 1 EICADPKKMWI 11

RESULT 19
 ID 009002 PRELIMINARY; PRT; 133 AA.

AC 009002:
 DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
 DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
 DE 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE SMALL INDUCIBLE CYTOKINE A21 (TCA4).
 GN SCYA21.

OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
 OC SCIROGNATHI; MURIDAE; MURINAE; MUS.
 RN [1]
 RP SEQUENCE FROM N.A.

RA TANABE S., LU Z., LUO Y., QUACKENBUSH E.J., BERMAN M.A.,
 RA COLLINS-FACIE L.A., MI S., REILLY C., LO D., JACOBS K.A., DORF M.E.;
 RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
 RN [2]
 RP SEQUENCE FROM N.A.

RA HEDRICK J.A., ZLOTNIK A.;
 RT "Identification and characterization of a novel beta chemokine
 RT containing six conserved cysteines."
 RL J. IMMUNOL. 159:1589-1593(1997).
 RN [3]
 RP SEQUENCE FROM N.A.

RA HEDRICK J.A., ZLOTNIK A.;
 RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
 DR EMBL: AF006637; G2209189; -
 DR EMBL: AF001980; G2624927; -
 DR MGD; MGI:1097677; SCYA21.
 DR PFAM: PF00048; 118; 1.

SQ SEQUENCE 133 AA; 14558 MW; C0532523 CRC32;

Query Match 66.0%; Score 64; DB 11; Length 133;
 Best Local Similarity 50.0%; Pred. No. 1.91e-01;
 Matches 6; Conservative 4; Mismatches 2; Indels 0; Gaps 0;

Db 73 EICADPKKMWV 84
 :|||||:|:
 QY 1 EICADPKKMWIQ 12

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RESULT 20
ID 009006 PRELIMINARY: PRT; 133 AA.
AC 009006;
GN
DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-JUL-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
DE 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE BETA CHEMOKINE EXODUS-2.
GN SCVA21.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCIROGNATHI; MURIDAE; MURINAE; MUS.
RN
RP SEQUENCE FROM N.A.
RC TISSUE-TOTAL FETUS;
RC MEDLINE; 97444139.
RA HROMAS R., KIM C.H., KLEMSZ M., KRATHOHL M., FIFE K., COOPER S.,
RA SCHNIZLEIN-BICK C., BROXMEYER H.E.;
RT "Isolation and characterization of Exodus-2, a novel C-C chemokine
RT with a unique 37-amino acid carboxyl-terminal extension.";
RL J. IMMUNOL. 159:2554-2558(1997).
RN
RP SEQUENCE FROM N.A.
RC TISSUE-TOTAL FETUS;
RA HROMAS R.A.;
RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; U88332; G3169697; -.
DR MGI; MGI:1097677; SCVA21.
DR PFAM; PF00048; 118; 1.
SQ SEQUENCE 133 AA; 14600 MW; B34A5E22 CRC32;

Query Match
Best Local Similarity 66.0%; Score 64; DB 11; Length 133;
Matches 6; Conservative 4; Mismatches 2; Indels 0; Gaps 0;

DB 73 ELCANPEGWVQ 84
QY 1 EICADPKQKMIQ 12

RESULT 21
ID 099126 PRELIMINARY: PRT; 760 AA.
AC 099126;
GN
DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
DT 01-NOV-1998 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
DT 01-MAY-1997 (TREMBLREL. 03, LAST ANNOTATION UPDATE)
DE CHITIN SYNTHETASE I.
GN CHS1.
OS USULAGO MAYDIS (SMUT FUNGUS).
OC EUKARYOTA; FUNGI; BASIDIOMYCOTA; USTILAGINOMYCETES;
OC USTILAGINOMYCETIDAE; USTILAGINALES; USTILAGINACEAE; USTILAGO.
RN
RP SEQUENCE FROM N.A.
RC STRAIN-RK32 (A2B3);
RA XOCOONOSTIE-CAZARES B., LEON-RAHIREZ C., RUIZ-HERREIRA J.;
RL MICROBIOLOGY 142:377-387(1996).
DR EMBL; X87748; G861151; -.
SQ SEQUENCE 760 AA; 85181 MW; 2F24C4C9 CRC32;

Query Match
Best Local Similarity 66.0%; Score 64; DB 3; Length 760;
Matches 7; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

DB 483 EICAEETGKRW 492
QY 1 EICADPKQKMW 10

RESULT 22
ID 043927 PRELIMINARY: PRT; 109 AA.
AC 043927;
GN
DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
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DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CXC CHEMOKINE PRECURSOR.
GN BCA-1.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN
RP SEQUENCE FROM N.A.
RX MEDLINE; 98130629.
RA LEGIER D.F., LOETSCHER M., STUBER ROOS R., CLARK-LEWIS I.,
RA BAGGIOLINI M., MOSER B.;
RT "A B-cell-attracting chemokine 1, a human CXC chemokine expressed in
RT lymphoid tissues, selectively attracts B lymphocytes via BLR1/CXCR5.";
RL J. EXP. MED. 187:653-660(1998).
RN
RP SEQUENCE FROM N.A.
RX MEDLINE; 98146056.
RA GUNN M.D., NGO V.N., ANSEL K.M., EKLAND E.H., CYSTER J.G.,
RA WILLIAMS L.T.;
RT "A B-cell-homing chemokine made in lymphoid follicles activates
RT Burkitt's lymphoma receptor-1.";
RL NATURE 391:799-803(1998).
RN
RP SEQUENCE FROM N.A.
RA NAPOLITANO M., SPINETTI G., GAETANO C., CAPOGROSSI C.M.;
RL SUBMITTED (OCT-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; AJ002211; E1249325; -.
DR EMBL; AF044197; G291376; -.
DR EMBL; AF029894; G3169814; -.
KV SIGNAL.
FT SIGNAL. 1 22 POTENTIAL.
FT CHAIN 23 109 POTENTIAL.
SQ SEQUENCE 109 AA; 12664 MW; BE5A46BC CRC32;

Query Match
Best Local Similarity 63.9%; Score 62; DB 4; Length 109;
Matches 6; Conservative 1; Mismatches 4; Indels 0; Gaps 0;

DB 75 VCVDPQAEWVQ 85
QY 2 ICADPKQKMIQ 12

RESULT 23
ID 084834 PRELIMINARY: PRT; 1053 AA.
AC 084834;
GN
DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE RIBONUCLEOSIDE REDUCTASE, LARGE CHAIN.
GN NRDA.
OS CHLAMYDIA TRACHOMATIS.
OC BACTERIA; CHLAMYDIALES; CHLAMYDIACEAE; CHLAMYDIA.
RN
RP SEQUENCE FROM N.A.
RC STRAIN-D/UW-3/CX;
RA STEPHENS R.S., KALMAN S., LAMMEL C.J., FAN J., MARATHE R., ARAVIND L.,
RA MITCHELL W.P., OLINGER L., TATISOV R.L., ZHAO Q., KOONIN E.V.,
RA DAVIS R.W.;
RT "Genome Sequence of an Obligate Intracellular Pathogen of Humans:
RT Chlamydia trachomatis.";
RL SCIENCE 0:0-0(1998).
RN
RP SEQUENCE FROM N.A.
RC STRAIN-D/UW-3/CX;
RA STEPHENS R.S., KALMAN S., LAMMEL C.J., FAN J., MARATHE R., ARAVIND L.,
RA MITCHELL W.P., OLINGER L., TATISOV R.L., ZHAO Q., KOONIN E.V.,
RA DAVIS R.W.;
RL SUBMITTED (MAY-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; AE001355; G3329297; -.
SQ SEQUENCE 1053 AA; 120168 MW; 781C1449 CRC32;

Query Match
Best Local Similarity 61.9%; Score 60; DB 2; Length 1053;
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Best Local Similarity 60.0%; Pred. No. 1.17e+00;
Matches 6; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 954 CASROKMWID 963
11 :|||:
Oy 3 CADPKOKMWI 12

RESULT 24

ID 068409 PRELIMINARY; PRT; 399 AA.

AC 068409;

DT 01-NOV-1996 (TREMBLREL. 01, CREATED)

DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)

DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)

DE ORF U1154.

OS HUMAN CYTOMEGALOVIRUS.

OC VIRUSES; DSDNA VIRUSES, NO RNA STAGE; HERPESVIRIDAE; BETAHERPESVIRINAE;

CC CYTOMEGALOVIRUS.

CC [1]

RP SEQUENCE FROM N.A.

RC STRAIN-TOWNE;

RA MEDLINE; 96099416.

RA CHA T.A., TOM E., KEMBLE G.W., DUKE G.M., MOCARSKI E.S., SPATE R.R.;

RT "Human cytomegalovirus clinical isolates carry at least 19 genes not

found in laboratory strains."

RL J. VIROL. 70:78-83(1996).

DR EMBL; U33332; G1167943; -.

SO SEQUENCE 399 AA; 45181 MW; 79B5D103 CRC32;

Query Match 60.8%; Score 59; DB 14; Length 399;
Best Local Similarity 44.4%; Pred. No. 1.82e+00;

Matches 4; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 308 VCEPKHEW 316
:|:|:|:
Oy 2 ICADPKOKMWI 10

RESULT 25

ID 061090 PRELIMINARY; PRT; 522 AA.

AC 061090;

DT 01-AUG-1998 (TREMBLREL. 07, CREATED)

DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)

DT 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)

DE SERINE RICH PROTEIN HOMOLOG (FRAGMENT).

OS PLASMODIUM VIVAX.

OC EUKARYOTA; ALVEOLATA; APICOMPLEXA; HAEMOSPORIDA; PLASMODIUM.

CC [1]

RP SEQUENCE FROM N.A.

RC STRAIN-SALVADOR I;

RA ROSENTHAL P.J.;

RL SUBMITTED (MAR-1998) TO EMBL/GENBANK/DBJ DATA BANKS.

DR EMBL; AF052747; G2970697; -.

FT NON-TER 1

SO SEQUENCE 522 AA; 58070 MW; B1E4CEB2 CRC32;

Query Match 59.8%; Score 58; DB 5; Length 522;
Best Local Similarity 55.6%; Pred. No. 2.83e+00;

Matches 5; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 158 CPAPKRNWI 166
|:|:|:|:
Oy 3 CADPKOKMWI 11

RESULT 26

ID 093290 PRELIMINARY; PRT; 982 AA.

AC 093290;

DT 01-FEB-1997 (TREMBLREL. 02, CREATED)

DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)

DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)

DE HYPOTHETICAL PROTEIN C27D8.3.

GN C27D8.3.

OS CAENORHABDITIS ELEGANS.

OC EUKARYOTA; METAZOA; NEMATODA; SECERNENTEA; RHABDITIA; RHABDITIDA;

CC RHABDITINA; RHABDITOIDEA; RHABDITIDAE; PELODERINAE; CAENORHABDITIS.

[1]

RP SEQUENCE FROM N.A.

RA PERCY C.;

RL SUBMITTED (SEP-1996) TO EMBL/GENBANK/DBJ DATA BANKS.

CC [2]

RP SEQUENCE FROM N.A.

RC MEDLINE; 94150718.

RA WILSON R., AINSOUGH R., ANDERSON K., BAYNES C., BERKS M., BONFIELD J.,

RA BURTON J., CONNELL M., COSEY T., COOPER J., COULSON A., CRAXTON M.,

RA DEAR S., DU Z., DUBIN R., FAYELLO A., FULTON L., GARDNER A., GREEN P.,

RA HAWKINS T., HILLIER L., JIER M., JOHNSTON L., JONES M., KERSHAW J.,

RA KIRSTEN J., LAISTER N., LATREILLE P., LIGHTNING J., LLOYD C.,

RA MCDURRAY A., MORTIMORE B., O'CALLAGHAN M., PARSONS J., PERCY C.,

RA RIFEEN L., ROOPRA A., SAUNDERS D., SHOWNKEEN R., SMALDON N., SMITH A.,

RA SONNHAMMER E., STADEN R., SUYSTON J., THIERRY-MIEG J., THOMAS K.,

RA VAUDIN M., VAUGHAN K., WATERSTON R., WATSON A., WEINSTOCK L.,

RA WILKINSON-SPROAT J., WOLDMAN P.,

RT "2.2 Mb of contiguous nucleotide sequence from chromosome III of C.

elegans."

RL NATURE 368:32-38(1994).

DR EMBL; 280214; E347985; -.

KW HYPOTHETICAL PROTEIN.

SO SEQUENCE 982 AA; 112538 MW; 41972852 CRC32;

Query Match 59.8%; Score 58; DB 5; Length 982;
Best Local Similarity 45.5%; Pred. No. 2.83e+00;

Matches 5; Conservative 4; Mismatches 2; Indels 0; Gaps 0;

Db 188 VCEPKOKMWI 198
:|:|:|:
Oy 2 ICADPKOKMWI 12

RESULT 27

ID 083516 PRELIMINARY; PRT; 187 AA.

AC 083516;

DT 01-NOV-1998 (TREMBLREL. 08, CREATED)

DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)

DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)

DE HYPOTHETICAL 21.4 KD PROTEIN.

GN TP0503.

OS TREPONEMA PALLIDUM.

CC BACTERIA; SPIROCHAETALES; SPIROCHAETACEAE; TREPONEMA.

CC [1]

RP SEQUENCE FROM N.A.

RC MEDLINE; 98332770.

RA FRASER C.M., NORRIS S.J., WEINSTOCK G.M., WHITE O., SUTTON G.G.,

RA DODSON R., GWINN M., HICKEY E.K., CLAYTON R., KETCHUM K.A.,

RA SODERGREN E., HARDHAM J.M., MCLEOD M.P., SALZBERG S., PETERSON J.,

RA KHALAK H., RICHARDSON D., HOWELL J.K., CHIDAMBARAM M., UTERBACK T.,

RA MCDONALD L., ARTIACH P., BOWMAN C., COTTON M.D., FUJII C., GARLAND S.,

RA HATCH B., HORST K., ROBERTS K., WAITHEY L., WEIDMAN J., SMITH H.O.,

RA VENTER J.C.;

RT "Complete Genome Sequence of Treponema pallidum, the Syphilis

agent Spirochete."

RL SCIENCE 281:375-388(1998).

CC [2]

RP SEQUENCE FROM N.A.

RA FRASER C.M., NORRIS S.J., WEINSTOCK G.M., WHITE O., SUTTON G.G.,

RA DODSON R., GWINN M., HICKEY E.K., CLAYTON R., KETCHUM K.A.,

RA SODERGREN E., HARDHAM J.M., MCLEOD M.P., SALZBERG S., PETERSON J.,

RA KHALAK H., RICHARDSON D., HOWELL J.K., CHIDAMBARAM M., UTERBACK T.,

RA MCDONALD L., ARTIACH P., BOWMAN C., COTTON M.D., FUJII C., GARLAND S.,

RA HATCH B., HORST K., ROBERTS K., WAITHEY L., WEIDMAN J., SMITH H.O.,

RA VENTER J.C.;

RT SUBMITTED (MAR-1998) TO EMBL/GENBANK/DBJ DATA BANKS.

DR EMBL; AE001226; G3322795; -.

KW HYPOTHETICAL PROTEIN.

SO SEQUENCE 187 AA; 21410 MW; 50303E26 CRC32;

Query Match 58.8%; Score 57; DB 2; Length 187;
 Best Local Similarity 54.5%; Pred. No. 4.36e+00;
 Matches 6; Conservative 4; Mismatches 0; Indels 1; Gaps 1;
 Db 31 CTOPRYOKWQ 41
 1:1:1:1:1:1
 QY 3 CADPK-QKWIO 12

RESULT 28
 ID Q67634 PRELIMINARY; PRT; 203 AA.
 AC Q67634;
 DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
 DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
 DE ECO O PROTEIN (FRAGMENT).
 DE GALLID HERPESVIRUS TYPE 1.
 OC VIRUSES: DSDNA VIRUSES, NO RNA STAGE; HERPESVIRIDAE;
 OC ALPHAHERPESVIRINAE; VARICELLOVIRUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-GA;
 RX MEDLINE: 96074534.
 RA PENG O., ZENG M., BHUTAN Z.A., UBOKATA E., TANAKA A., NONOYAMA M.,
 RA SHITAZI Y.,
 RT "Isolation and characterization of Marek's disease virus (MDV) cDNAs
 RT mapping to the BamHI-12, BamHI-02, and BamHI-L fragments of the MDV
 RT genome from lymphoblastoid cells transformed and persistently infected
 RT with MDV."
 RL VIROLOGY 213:590-599(1995).
 DR EMBL: U34866; G1185444; -.
 DR PFM: PF00048; 118; 1.
 FT NON_TER 1
 SQ SEQUENCE 203 AA; 23132 MW; 887D04C3 CRC32;
 Query Match 58.8%; Score 57; DB 14; Length 203;
 Best Local Similarity 45.5%; Pred. No. 4.36e+00;
 Matches 5; Conservative 2; Mismatches 4; Indels 0; Gaps 0;
 Db 145 VCVDEPAPWQ 155
 1:1:1:1:1:1
 QY 2 ICADPKQKWIO 12

RESULT 29
 ID P91309 PRELIMINARY; PRT; 1224 AA.
 AC P91309;
 DT 01-MAY-1997 (TREMBLREL. 03, CREATED)
 DT 01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)
 DE 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE CODED FOR BY C. ELEGANS CDNA YK10F8.5.
 GN F46F11.1.
 OS CAENORHABDITIS ELEGANS.
 OC EUKARYOTA: NEMATODA: SECERNENTEA: RHABDITIA: RHABDITIDA:
 OC RHABDITINA: RHABDITOIDEA: RHABDITIDAE: PELODERTINAE; CAENORHABDITIS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-BRISTOL N2;
 RX MEDLINE: 94150718.
 RA WILSON R., AINSCOUGH R., ANDERSON K., BAYNES C., BERKS M., BONFIELD J.,
 RA BURTON J., CONNELL M., COPSEY T., COOPER J., COULSON A., CRAYTON M.,
 RA DEAR S., DU Z., DURBIN R., FAVELLO A., FULTON L., GARDNER A., GREEN P.,
 RA HAWKINS T., HILLIER L., JIER M., JOHNSTON L., JONES M., KERSHAW J.,
 RA KIRSTEN J., LAISTER N., LATREILLE P., LIGHTNING J., LLOYD C.,
 RA MCMURRAY A., MORTIMORE B., O'CALLAGHAN M., PARSONS J., PERCY C.,
 RA RIFKEN L., ROOPRA A., SAUNDERS D., SHOWNKEEN R., SMALDON N., SMITH A.,
 RA SONNHAMMER E., STADEN R., SULSTON J., THIERRY-MIEG J., THOMAS K.,
 RA VAUDIN M., VAUGHAN K., WATERSTON R., WATSON A., WEINSTOCK L.,
 RA WILKINSON-SPROAT J., WOHLDMAN P.,
 RT "2.2 Mb of contiguous nucleotide sequence from chromosome III of C.
 RT elegans."
 RL NATURE 368:32-38(1994).
 RN [2]

RP SEQUENCE FROM N.A.
 RC STRAIN-BRISTOL N2;
 RA PAULEY A., GATTUNG S.,
 RL SUBMITTED (FEB-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [3]
 RP SEQUENCE FROM N.A.
 RC STRAIN-BRISTOL N2;
 RA WATERSTON R.,
 RL SUBMITTED (FEB-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: U88173; G1825643; -.
 SQ SEQUENCE 1224 AA; 139752 MW; 81AEB3F9 CRC32;

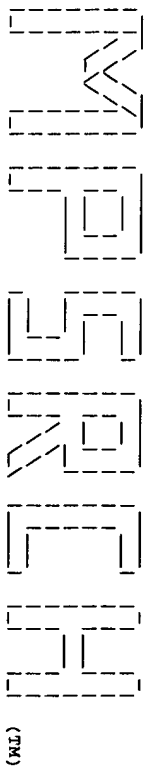
Query Match 58.8%; Score 57; DB 5; Length 1224;
 Best Local Similarity 41.7%; Pred. No. 4.36e+00;
 Matches 5; Conservative 3; Mismatches 4; Indels 0; Gaps 0;
 Db 456 EYCEEMKKWQ 467
 1:1:1:1:1:1
 QY 1 EICADPKQKWIO 12

RESULT 30
 ID P70808 PRELIMINARY; PRT; 95 AA.
 AC P70808;
 DT 01-FEB-1997 (TREMBLREL. 02, CREATED)
 DT 01-FEB-1997 (TREMBLREL. 02, LAST SEQUENCE UPDATE)
 DE 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
 DE ATP BINDING PROTEIN (FRAGMENT).
 GN FTSA.
 OS AZOTOBACTER VINELANDII.
 OC BACTERIA; PROTEOBACTERIA; GAMMA SUBDIVISION; AZOTOBACTERACEAE;
 OC AZOTOBACTER.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-DJ116;
 RA LI C.L., ERICKSON H.P.,
 RL SUBMITTED (AUG-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: U65939; G1518098; -.
 FT NON_TER 1
 SQ SEQUENCE 95 AA; 10655 MW; 1B803E4E CRC32;

Query Match 57.7%; Score 56; DB 2; Length 95;
 Best Local Similarity 33.3%; Pred. No. 6.70e+00;
 Matches 4; Conservative 4; Mismatches 4; Indels 0; Gaps 0;
 Db 81 DPCPGTQRFQ 92
 1:1:1:1:1:1
 QY 1 EICADPKQKWIO 12

Search completed: Thu Apr 1 07:42:34 1999
 Job time : 32 secs.

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Msrch_p protein - protein database search, using Smith-Waterman algorithm
Run on: Thu Apr 1 07:46:02 1999; MasPar time 2.83 Seconds
68.666 Million cell updates/sec
Tabular output not generated.

Title: >US-08-927-939-14
Description: (1-12) from US08927939.pep
Perfect Score: 101
Sequence: 1 EICLDPRKRWIQ 12

Scoring table: PAM 150
Gap 15

Searched: 131922 seqs, 16180660 residues

Post-processing: Minimum Match 0%
Listing first 100 summaries

Database:

a-gene seq32
1:part1 2:part2 3:part3 4:part4 5:part5 6:part6 7:part7
8:part8 9:part9 10:part10 11:part11 12:part12 13:part13
14:part14 15:part15 16:part16 17:part17 18:part18
19:part19 20:part20 21:part21 22:part22 23:part23
24:part24 25:part25 26:part26 27:part27 28:part28
29:part29

Statistics: Mean 18.874; Variance 63.668; scale 0.296

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result	No.	Score	Query Match	Length	ID	Description	Pred. No.
1	91	90.1	99	2	R06398	Human MCF precursor.	1.87e-02
2	88	87.1	66	24	W13598	Monocyte chemoattract.	3.92e-02
3	88	87.1	67	24	W13599	Monocyte chemoattract	3.92e-02
4	88	87.1	68	24	W13597	Monocyte chemoattract	3.92e-02
5	88	87.1	69	14	R87678	des(2-8) MCP-1.	3.92e-02
6	88	87.1	69	24	W13596	Monocyte chemoattract	3.92e-02
7	88	87.1	76	20	W09374	Monocyte chemoattract	3.92e-02
8	88	87.1	76	1	P90292	Peptide from human g1	3.92e-02
9	88	87.1	76	14	R87675	(28-Asp) MCP-1.	3.92e-02
10	88	87.1	76	10	R53398	Sense MCP-1.	3.92e-02
11	88	87.1	76	14	R87676	(24-Arg) MCP-1.	3.92e-02
12	88	87.1	76	5	R87660	MCP.	3.92e-02
13	88	87.1	76	14	R87677	(3-Ala) MCP-1.	3.92e-02
14	88	87.1	76	15	R87680	Monocyte chemoattract	3.92e-02
15	88	87.1	76	21	W11131	Mature human monocyte	3.92e-02
16	88	87.1	77	15	R86859	Mature MCP-1.	3.92e-02
17	88	87.1	99	14	R73914	Human monocyte chemo	3.92e-02
18	88	87.1	99	13	R70800	Chemottractant prote	3.92e-02

19	88	87.1	99	2	P95387	Human monocyte chemo-	3.92e-02
20	88	87.1	99	5	R28663	MCF.	3.92e-02
21	84	83.2	29	4	R20237	NAF(44-72) peptide in	1.05e-01
22	84	83.2	39	22	W04515	Interleukin-8(34-72)	1.05e-01
23	84	83.2	67	7	R38087	Modified human interl	1.05e-01
24	84	83.2	67	7	R38086	Modified human interl	1.05e-01
25	84	83.2	68	7	R38085	Modified human interl	1.05e-01
26	84	83.2	68	7	R38084	Modified human interl	1.05e-01
27	84	83.2	69	7	R38081	Modified human interl	1.05e-01
28	84	83.2	69	7	R38082	Modified human interl	1.05e-01
29	84	83.2	71	27	W26275	Dro13+ chemokine beta	1.05e-01
30	84	83.2	72	11	R70183	Soluble interleukin-8	1.05e-01
31	84	83.2	72	1	R03615	Human neutrophil chem	1.05e-01
32	84	83.2	72	23	W41519	Neutrophil chemotacti	1.05e-01
33	84	83.2	72	23	W25714	Mutant human IL-8, Y1	1.05e-01
34	84	83.2	72	23	W25708	Mutant human IL-8, Y1	1.05e-01
35	84	83.2	72	23	W25701	Mutant human IL-8, R4	1.05e-01
36	84	83.2	72	23	W26204	Neutrophil-specific C	1.05e-01
37	84	83.2	72	23	W25713	Mutant human IL-8, F2	1.05e-01
38	84	83.2	72	26	P81838	Sequence of a synthe	1.05e-01
39	84	83.2	72	23	W25710	Mutant human IL-8, D4	1.05e-01
40	84	83.2	72	23	W25707	Mutant human IL-8, Y1	1.05e-01
41	84	83.2	72	23	W25709	Mutant human IL-8, V4	1.05e-01
42	84	83.2	72	23	R39803	Chemokine-like protei	1.05e-01
43	84	83.2	72	20	R39812	Chemokine-like protei	1.05e-01
44	84	83.2	72	20	R39805	Chemokine-like protei	1.05e-01
45	84	83.2	72	20	R39805	Chemokine-like protei	1.05e-01
46	84	83.2	72	1	P90913	Sequence of a synthe	1.05e-01
47	84	83.2	72	20	R39804	Chemokine-like protei	1.05e-01
48	84	83.2	72	22	W04516	Interleukin(1-72) pro	1.05e-01
49	84	83.2	72	7	R38080	Human neutrophil chem	1.05e-01
50	84	83.2	72	1	R03166	Human neutrophil-8 m	1.05e-01
51	84	83.2	72	17	R88057	Human interleukin-8.	1.05e-01
52	84	83.2	73	1	P90078	Human neutrophil acti	1.05e-01
53	84	83.2	73	1	R39817	Chemokine-like protei	1.05e-01
54	84	83.2	73	20	R39818	Chemokine-like protei	1.05e-01
55	84	83.2	73	20	R39814	Interleukin-8.	1.05e-01
56	84	83.2	73	20	R39815	Chemokine-like protei	1.05e-01
57	84	83.2	73	20	R39816	Chemokine-like protei	1.05e-01
58	84	83.2	73	20	R39816	Bac 3 chemokine betai	1.05e-01
59	84	83.2	75	27	W22673	Bac 2 chemokine betai	1.05e-01
60	84	83.2	77	27	W22672	Human neutrophil acti	1.05e-01
61	84	83.2	77	1	P90017	Human neutrophil acti	1.05e-01
62	84	83.2	77	3	R13168	[Ala IL-8]77 leukocyt	1.05e-01
63	84	83.2	82	27	W22674	Dro11/2 chemokine bet	1.05e-01
64	84	83.2	82	24	W17665	Bac 1 chemokine betai	1.05e-01
65	84	83.2	97	13	R70795	Stem cell mobilising	1.05e-01
66	84	83.2	98	27	W22670	Interleukin-8/MNP-1.	1.05e-01
67	84	83.2	98	28	W30191	Human chemokine betai	1.05e-01
68	84	83.2	98	17	R33087	Monocyte chemoattract	1.05e-01
69	84	83.2	99	17	P93631	Human chemokine beta-	1.05e-01
70	84	83.2	99	2	R05239	Amino acid sequence o	1.05e-01
71	84	83.2	99	1	R05239	Human neutrophil chem	1.05e-01
72	83	82.2	72	23	W25711	Mutant human IL-8, L4	1.34e-01
73	83	82.2	76	5	R26380	Sequence of bovine P6	1.34e-01
74	83	82.2	99	5	R26581	Sequence of P6 precu	1.34e-01
75	81	80.2	72	14	R73915	Human monocyte chemo	2.17e-01
76	81	80.2	72	23	W25706	Mutant human IL-8, R4	2.17e-01
77	81	80.2	72	23	W25707	Mutant human IL-8, R4	2.17e-01
78	81	80.2	99	13	R70801	Chemottractant prote	2.17e-01
79	81	80.2	109	9	R24353	Cytochrome encoded by c	2.17e-01
80	81	80.2	82	29	W44721	Amino acid sequence o	2.77e-01
81	80	79.2	89	12	R70994	Protein encoded by cd	2.77e-01
82	80	79.2	89	13	R75419	Human SDF-1-beta.	2.77e-01
83	80	79.2	93	13	R75420	Human SDF-1-beta.	2.77e-01
84	80	79.2	97	21	W00667	Parcraas expressed ch	2.77e-01
85	80	79.2	97	24	W14980	Human eosinocyte CC t	2.77e-01
86	80	79.2	97	23	W10059	Human eosinocyte	2.77e-01
87	79	78.2	72	23	W25712	Mutant human IL-8, L4	3.52e-01
88	76	75.2	18	4	R22353	IL8 receptor-interact	7.23e-01
89	76	75.2	23	11	R58625	Putative glycan bindi	7.23e-01
90	76	75.2	72	23	W25703	Mutant human IL-8, E4	7.23e-01
91	76	75.2	72	21	W11132	Human interleukin-8 u	7.23e-01

92	75	74.3	72.23	W25704	Mutant human IL-8, R4	9.18e-01
93	75	74.3	72.23	W25705	Mutant human IL-8, R4	9.18e-01
94	75	74.3	73.13	R70252	Endotoxin chemoattractant	9.18e-01
95	75	74.3	96.24	W14991	Guinea pig eosinocyte	9.18e-01
96	73	72.3	72.13	R70804	Chemoattractant MCP-2	1.48e+00
97	73	72.3	72.23	W12435	Chimeric interleukin-	1.48e+00
98	73	72.3	109.29	W42072	Human MC proprotein.	1.48e+00
99	73	72.3	109.26	W26552	Human beta-chemokine	1.48e+00
100	72	71.3	395.26	W23347	Novel murine CX3C	1.87e+00

ALIGNMENTS

RESULT 1
ID R06398 standard: protein; 99 AA.
AC R06398;
DE 14-DEC-1990 (first entry)
DE Human MCF precursor.
KM Monocyte chemotactic factor; antibacterial; antitumour; cancer.
OS Homo sapiens.
FH Key Location/Qualifiers
FT 24.99
FT /label-mature MCF
FT /note="Claim 1"
FT misc-difference 76
FT /label-A or T
PN WO9007863-A.
PD 26-JUL-1990.
PE 02-JAN-1990; U00004.
PR 01-JAN-1989; JP-000065.
PR 03-FEB-1989; JP-026438.
PA (USDC) US SEC OF COMMERCE.
PI Furutani Y, Fukui T, Junichi Y, Masaki Y, Matsushima K;
PI Oppenheim J;
DR MPI: 90-253802/33.
DR P-PSDB: R06398.
PT Human monocyte chemotactic factor type polypeptide and DNA
PT encoding it - useful as antibacterial and antitumour agents.
PS Claim 2: Page 25; 27pp; English.
CC The sequence was deduced from the DNA sequence determined from
CC three recombinant plasmids, pMCF7, pMCF25 and pMCF29 which
CC were isolated from a cDNA library prep. from RNA extracted from
CC human promyelocytic leukaemia cell line, HL-60 (ATCC CCL-240).
CC vectors. In plasmids pMCF7 and pMCF29 bases 105 and 226 were
CC T and G resp. In pMCF25 they were C and A resp. The AA at posn.
CC 76 of the precursor protein is therefore not determined and may be
CC either Ala or Thr. The protein may be produced by recombinant
CC DNA techniques in E.coli, and is useful as a drug for treatment of
CC certain bacterial infections and cancers.
SQ Sequence 99 AA;

Query Match 90.1%; Score 91; DB 2; Length 99;
Best Local Similarity 83.3%; Pred. No. 1.87e-02;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 73 eicxdkpkqkvq 84
QY 1 EICLDPKQKMIQ 12

RESULT 2

ID W13598 standard: peptide; 66 AA.
AC W13598;
DE 07-NOV-1997 (first entry)
DE Monocyte chemoattractant protein analogue MCP-1 (10-76).
KM Truncated monocyte chemoattractant protein-1; inhibitor;
KM receptor binding; anti-inflammatory; basophil; lymphocyte; allergy;
KM chronic inflammatory disease; arthritis; arteriosclerosis;
KM lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.

PR 19-JUN-1995; CA-152141.
PA (LEWIS) LEWIS I.
PI Gong J, Lewis I;
DR MPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding; useful as
PT anti-inflammatory agent
PS Disclosure: Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (10-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-9 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 66 AA;

Query Match 87.1%; Score 88; DB 24; Length 66;
Best Local Similarity 83.3%; Pred. No. 3.92e-02;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 40 eicadpkqkvq 51
QY 1 EICLDPKQKMIQ 12

RESULT 3
ID W13599 standard; peptide; 67 AA.
AC W13599;
DE 07-NOV-1997 (first entry)
DE Monocyte chemoattractant protein analogue MCP-1 (11-76).
KM Truncated monocyte chemoattractant protein-1; inhibitor;
KM receptor binding; anti-inflammatory; basophil; lymphocyte; allergy;
KM chronic inflammatory disease; arthritis; arteriosclerosis;
KM lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PA (LEWIS) LEWIS I.
PI Gong J, Lewis I;
DR MPI: 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding; useful as
PT anti-inflammatory agent
PS Disclosure: Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (11-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-10 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 67 AA;

Query Match 87.1%; Score 88; DB 24; Length 67;
Best Local Similarity 83.3%; Pred. No. 3.92e-02;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 41 eicadpkqkvq 52

QY 1 EICLDPKQKMIQ 12

RESULT 4
ID W13597 standard; peptide: 68 AA.

AC W13597; 07-NOV-1997 (first entry)
DE Monocyte chemoattractant protein analogue MCP-1 (9-76).
KW Truncated monocyte chemoattractant protein-1; inhibitor;
KW receptor binding; anti-inflammatory; basophil; lymphocyte; allergy;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
KW lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PA (LEWIS/) LEWIS I.
PI Gong J, Lewis I;
DR WPI; 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Claim 7; Page 5; 27pp; English.

CC The present sequence represents an analogue, MCP-1 (9-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-8 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 68 AA;

Query Match 87.1%; Score 88; DB 24; Length 68;
Best Local Similarity 83.3%; Pred. No. 3.92e-02;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Tb 42 eicadpdkqkvq 53
QY 1 EICLDPKQKMIQ 12

RESULT 5
ID R87678 standard; protein: 69 AA.
AC R87678;
DT 21-FEB-1996 (first entry)
DE des(2-8) MCP-1.
KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
KW angioplasty.
OS Homo sapiens.
FH Key
FH modified_site 2.3

FT Location/Qualifiers
FT 2.3
FT /note="amino acids 2-8 of the native protein have
FT been deleted between these residues"
FT
FT disulfide_bond 4..29
FT disulfide_bond 5..45
PN W09513295-A1.
PD 18-MAY-1995.
PF 07-NOV-1994; U12874.
PR 12-NOV-1993; US-152301.
PA (DAND) DANA FARBER CANCER INST INC.
PI Rollins B, Zhang YJ;
DR WPI; 95-215051/28.
PT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
PT capable of inhibiting the monocyte chemo-attractant activity of
PT endogenous MCP-1 and can be used to treat restenosis

PS Claim 4; Page 11; 22pp; English.
CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
CC that they inhibit the monocyte chemoattractant activity of endogenous
CC MCP-1, provided that the derivative has not been modified by the
CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
CC are: (1) substitution of 28-Tyr by aspartate; (2) substitution of 24 Arg
CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
CC acids 2-8. The present sequence is a specifically claimed human MCP-1
CC derivative based on the parent protein disclosed in Rollins, Molecular
CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC The peptides can be used to prevent restenosis, e.g. in patients
CC undergoing coronary artery angioplasty.
SQ Sequence 69 AA;

Query Match 87.1%; Score 88; DB 14; Length 69;
Best Local Similarity 83.3%; Pred. No. 3.92e-02;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 43 eicadpdkqkvq 54
QY 1 EICLDPKQKMIQ 12

RESULT 6
ID W13596 standard; peptide: 69 AA.

AC W13596;
DT 07-NOV-1997 (first entry)
DE Monocyte chemoattractant protein analogue MCP-1 (8-76).
KW Truncated monocyte chemoattractant protein-1; inhibitor;
KW receptor binding; anti-inflammatory; basophil; lymphocyte; allergy;
KW chronic inflammatory disease; arthritis; arteriosclerosis;
KW lung disease.
OS Homo sapiens.
PN CA2152141-A.
PD 20-DEC-1996.
PF 19-JUN-1995; 152141.
PR 19-JUN-1995; CA-152141.
PA (LEWIS/) LEWIS I.
PI Gong J, Lewis I;
DR WPI; 97-165844/16.
PT N-terminally truncated monocyte chemoattractant protein-1 (MCP-1) -
PT lacks MCP-1 activity and inhibits receptor binding, useful as
PT anti-inflammatory agent
PS Claim 5; Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (8-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-7 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 69 AA;

Query Match 87.1%; Score 88; DB 24; Length 69;
Best Local Similarity 83.3%; Pred. No. 3.92e-02;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 43 eicadpdkqkvq 54
QY 1 EICLDPKQKMIQ 12

RESULT 7
ID W09374 standard; protein: 76 AA.
AC W09374;
DT 21-MAR-1997 (first entry)
DE Monocyte chemotactic protein 1.

KW Human; monocyte chemoattractant protein; antisense; inhibition;
KW mononuclear cell; lymphocyte; macrophage; smooth muscle cell;
OS Homo sapiens.
FH Key Location/Qualifiers
FT misc_difference 1
FT misc_difference 51 /note= "encoded by codon CAG"
FT misc_difference 51 /note= "encoded by codon AUG"
FT misc_difference 65 /note= "encoded by codon CAC"
PM US5571713-A.
PD 05-NOV-1996.
PF 22-OCT-1992; 965678.
PR 22-OCT-1992; US-965678.
PR 27-MAY-1994; US-250958.
PA (UNMI) UNIV MICHIGAN.
PI Kunkel SL, Lyle LR, Strieter RM;
DR WPI: 96-505405/50.
DR N-PSDB: T48092.
PT Anti-sense Monocyte Chemoattractic Protein-1 oligo:nucleotide(s) -
PT useful for therapy or diagnosis of restenosis, etc.
PS Disclosure: Column 13-14; 16pp; English.
CC This is the amino acid sequence of the human monocyte chemoattractant
protein (MCP)-1, a member of the C-C chemokine family. MCP-1 is a potent
stimulator of monocyte chemotaxis and is produced by injured vascular
smooth cells thus attracting monocytes and macrophages which infiltrate
the injured area and release growth factor. This causes proliferation of
the vascular smooth cells resulting in restenosis. The gene sequence can
be used to generate antisense sequences e.g. T48093-7, which can be used
to inhibit in vitro MCP-1 prodn. by mononuclear cells e.g. lymphocytes or
macrophages, or smooth muscle cells, esp. in order to prevent vascular
restenosis.
SQ Sequence 76 AA:

Query Match 87.1%; Score 88; DB 20; Length 76;
Best Local Similarity 83.3%; Pred. No. 3.92e-02;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
Db 50 elcaddpkqkwg 61
||| |||||:|
QY 1 EICLDPKQKWIQ 12

RESULT 8
ID P90292 standard; peptide; 76 AA.
AC P90292;
DT 17-JAN-1990 (first entry)
DE Peptide from human glioma cell line U-105MG.
KW Glioma; leucocyte; chemotaxis; neoplasms.
OS Human.
FH Key Location/Qualifiers
FT modified_site 1 /label= OTHER
FT /note= "pyroglutamic acid"
PM US7304234-A.
PD 20-JUL-1989.
PF 31-JAN-1989; 030423.
PR 31-JAN-1989; US-304234.
NA (USSH) US Dept. of Health and Human.
Yoshimura T; Robinson E; Appella E; Leonard E.
LR WPI: 89-263501/36.
PT New peptide with specific chemotactic activity for monocytes - isolated
from glioma or leucocyte cells, useful for treating infections and
neoplasms.
PS Disclosure: page 3; 46pp; English.
CC Peptide is derived from glioma cell line U-105MG (ATCC CRL9332) or from
leukocytes and has mol. wt. 8400. Used to treat infections and neoplasms.
SQ Sequence 76 AA:

Query Match 87.1%; Score 88; DB 1; Length 76;
Best Local Similarity 83.3%; Pred. No. 3.92e-02;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 50 elcaddpkqkwg 61
||| |||||:|
QY 1 EICLDPKQKWIQ 12

RESULT 9
ID R87675 standard; protein; 76 AA.
AC R87675;
DT 21-FEB-1996 (first entry)
DE (28-ASP) MCP-1.
KW monocyte chemoattractant protein; MCP-1; mutant; restenosis;
OS Homo sapiens.
FH Key Location/Qualifiers
FT modified_site 28
FT /note= "Tyr in the native sequence is replaced by Asp"
FT disulfide bond 11..36
FT disulfide bond 12..52
PM W09513295-A1.
PD 18-MAY-1995.
PF 07-NOV-1994; U12874.
PR 12-NOV-1993; US-152301.
PA (DAND) DANA FARBER CANCER INST INC.
PI Rollins B, Zhang YJ;
DR WPI: 95-215051/28.
PT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
PT capable of inhibiting the monocyte chemo-attractant activity of
PT endogenous MCP-1 and can be used to treat restenosis
PS Claim 3: Page 11; 22pp; English.
CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
CC that they inhibit the monocyte chemoattractant activity of endogenous
CC MCP-1, provided that the derivative has not been modified by the
CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
CC are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg
CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
CC acids 2-8. The present sequence is a specifically claimed human MCP-1
CC derivative based on the parent protein disclosed in Rollins, Molecular
CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC The peptides can be used to prevent restenosis, e.g. in patients
CC undergoing coronary artery angioplasty.
SQ Sequence 76 AA:

Query Match 87.1%; Score 88; DB 14; Length 76;
Best Local Similarity 83.3%; Pred. No. 3.92e-02;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
Db 50 elcaddpkqkwg 61
||| |||||:|
QY 1 EICLDPKQKWIQ 12

RESULT 10
ID R53398 standard; Protein; 76 AA.
AC R53398;
DT 15-DEC-1994 (first entry)
DE Sense MCP-1.
KW Antisense; RNA; DNA; monocyte chemotactic protein-1; MCP-1;
KW radionuclide; vascular restenosis; alpha; beta; emitting isotope;
KW diagnosis; monocytes; vascular injury.
OS Mammalian.
FH Key Location/Qualifiers
FT misc_difference 1 /note= "Unspecified amino acid"
FT W09409128-A.
PM 28-APR-1994.
PD 20-OCT-1993; U10074.
PF 22-OCT-1992; US-965678.
PR (MLCW) MALLINCKRODT MEDICAL INC.
PA Lyle LR;
PI WPI: 94-151314/18.
DR WPI: 94-151314/18.
PT Anti-sense monocyte chemoattract protein-1 oligo:nucleotide(s) and
peptide(s) - is used for inhibiting, treating or imaging areas of

PF vascular restenosis or potential restenosis
PS Disclosure: Page 5; 42pp; English.
CC The sequences given in R53598-99 represent sense and antisense
CC monocytic chemotactic protein-1 (MCP-1) respectively. These
CC oligonucleotides may be labelled with a radionuclide and use
CC therapeutically for the treatment of vascular restenosis.
CC Radiolabelled antisense MCP-1 compounds may be constructed using high
CC energy alpha or beta emitting isotopes rather than the gamma
CC emitters customarily used for diagnostic purposes. Antisense MCP-1
CC compounds inactivate MCP-1 or inhibit production of MCP-1 so that
CC monocytes are not attracted to the area of vascular injury and
CC proliferation of vascular cells is inhibited.
SQ Sequence 76 AA;

Query Match 87.1%; Score 88; DB 10; Length 76;
Best Local Similarity 83.3%; Pred. No. 3.92e-02;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 50 eicadpkkqkwq 61
||| |||||:|
Qy 1 EICLDPKQKWQ 12

RESULT 11
ID R87676 standard; protein: 76 AA.
AC R87676;
DE 21-FEB-1996 (first entry)
DE (24-Arg) MCP-1.
KW monocytic chemoattractant protein; MCP-1; mutant; restenosis;
KW angioplasty.
OS Homo sapiens.
FH Key Location/Qualifiers
FT modified_site 24
FT /note="Arg in the native sequence is replaced by Phe"
FT disulfide_bond 11..36
FT disulfide_bond 12..52
PN W09513295-A1.
PD 18-MAY-1995.
PF 07-NOV-1994; U12874.
PF 12-NOV-1993; US-152301.
PA (DAND) DANA FARBER CANCER INST INC.
PI Rollins B. Zhang YJ;
PI WPI: 95-215051/28.
DR Human monocytic chemo-attractant protein-1 (MCP-1) derivs. - are
PT capable of inhibiting the monocytic chemo-attractant activity of
PT endogenous MCP-1 and can be used to treat restenosis
PS Claim 5; Page 11; 22pp; English.
CC Monocytic chemoattractant protein-1 (MCP-1) derivatives are mutated such
CC that they inhibit the monocytic chemoattractant activity of endogenous
CC MCP-1, provided that the derivative has not been modified by the
CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
CC are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg
CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
CC acids 2-8. The present sequence is a specifically claimed human MCP-1
CC derivative based on the parent protein disclosed in Rollins, Molecular
CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC The peptides can be used to prevent restenosis, e.g. in patients
CC undergoing coronary artery angioplasty.
SQ Sequence 76 AA;

Query Match 87.1%; Score 88; DB 14; Length 76;
Best Local Similarity 83.3%; Pred. No. 3.92e-02;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 50 eicadpkkqkwq 61
||| |||||:|
Qy 1 EICLDPKQKWQ 12

RESULT 12
ID R28660 standard; Protein: 76 AA.
AC R28660;
DE 24-MAR-1993 (first entry)

DE MCF.
KW Plasmid; monocytic chemotactic factor; MCP; translation;
KW termination; terminator; initiation; ribosome binding site;
KW RBS; promoter; tryptophan; repressor.
OS Synthetic.
PN W09219737-A.
PD 12-NOV-1992.
PF 27-APR-1992; J00550.
PF 09-MAY-1991; JP-135950.
PA (DAIN) DAINIPPON PHARM CO LTD.
PI Fukui T, Matsuo N, Yamada M, Yamagishi J;
PI WPI: 92-398864/48.
DR N-PSDB; Q30745-46.
PT Prodn. of polypeptide(s) having monocytic chemotactic activity -
PT using expression plasmids with E. coli elements and specific
PT E.coli strains
PS Claim 1; Page 48 + Page 36; 56pp; English.
CC An expression plasmid, pHM483, for producing MCF(76) consisting
CC of 76 amino acids was constructed. The prod. can be used for e.g.
CC treating bacterial infectious diseases.
SQ Sequence 76 AA;

Query Match 87.1%; Score 88; DB 5; Length 76;
Best Local Similarity 83.3%; Pred. No. 3.92e-02;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 50 eicadpkkqkwq 61
||| |||||:|
Qy 1 EICLDPKQKWQ 12

RESULT 13
ID R87677 standard; protein: 76 AA.
AC R87677;
DE 21-FEB-1996 (first entry)
DE (3-Ala) MCP-1
KW monocytic chemoattractant protein; MCP-1; mutant; restenosis;
KW angioplasty.
OS Homo sapiens.
FH Key Location/Qualifiers
FT modified_site 3
FT /note="Asp in the native sequence is replaced by Ala"
FT disulfide_bond 11..36
FT disulfide_bond 12..52
PN W09513295-A1.
PD 18-MAY-1995.
PF 07-NOV-1994; U12874.
PF 12-NOV-1993; US-152301.
PA (DAND) DANA FARBER CANCER INST INC.
PI Rollins B. Zhang YJ;
PI WPI: 95-215051/28.
DR Human monocytic chemo-attractant protein-1 (MCP-1) derivs. - are
PT capable of inhibiting the monocytic chemo-attractant activity of
PT endogenous MCP-1 and can be used to treat restenosis
PS Claim 6; Page 11; 22pp; English.
CC Monocytic chemoattractant protein-1 (MCP-1) derivatives are mutated such
CC that they inhibit the monocytic chemoattractant activity of endogenous
CC MCP-1, provided that the derivative has not been modified by the
CC substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations
CC are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg
CC by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino
CC acids 2-8. The present sequence is a specifically claimed human MCP-1
CC derivative based on the parent protein disclosed in Rollins, Molecular
CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
CC The peptides can be used to prevent restenosis, e.g. in patients
CC undergoing coronary artery angioplasty.
SQ Sequence 76 AA;

Query Match 87.1%; Score 88; DB 14; Length 76;
Best Local Similarity 83.3%; Pred. No. 3.92e-02;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 50 eicadpkkqkwq 61

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QY      1 EICLDPKOKWIO 12

RESULT 14
ID R87680 standard; protein; 76 AA.
AC R87680;
DE Monocyte chemotactic activating factor for use as wound remedy.
KW monocyte chemotactic activating factor; MCAF; wound remedy.
OS Homo sapiens.
PN WO9507710-A1.
PD 23-MAR-1995.
PF 13-SEP-1994; J01512.
PR 13-SEP-1993; JP-227385.
PA (TORA ) TORAY IND INC.
PI Matsushima K, Naruto M;
DR WPI: 95-131181/17.
PT Wound treatment using monocyte chemotactic factor - has potent
PS therapeutic effect on skin wounds and ulcers
CC The invention relates to a new remedy for curing wounds which, instead
CC of comprising a growth factor, comprises a monocyte chemotactic
CC activating factor (MCAF) or its variants or derivatives. The factor has
CC potent effect on skin wounds and ulcers. The present sequence is human
CC MCAF, the activity of which is exemplified as the new remedy.
SQ Sequence 76 AA;

Query Match      87.1%; Score 88; DB 15; Length 76;
Best Local Similarity 83.3%; Pred. No. 3.92e-02;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db      50 eicadpkykxwq 61
QY      1 EICLDPKOKWIO 12

RESULT 15
ID W11131 standard; protein; 76 AA.
AC W11131;
DE 10-JUN-1997 (first entry)
MCP-1; mature human monocyte chemoattractant protein-1 (MCP-1).
KW MCP-1; mature chemotactant protein-1; cytokine; interleukin-8;
KW IL-8; neutrophil activating peptide; labelling; imaging; targeting;
KW radionuclide; infection; inflammation; neoplasm; atheromatous lesion;
KW restenosis.
OS Homo sapiens.
FH Key Location/Qualifiers
FT misc_difference 1
FT note="X- any amino acid"
PN US5605671-A.
PD 23-FEB-1997.
PF 05-OCT-1992; 956862.
PR 05-OCT-1992; US-956863.
PR 05-OCT-1992; US-956862.
PR 29-APR-1994; US-235659.
PA (MHCW ) MALLINCKRODT MEDICAL INC.
PA (UNMI ) UNIV MICHIGAN.
PI Kunkel SL, Lyle LR, Strieter RM;
DR WPI: 97-153541/14.
PT Radio:labelling neutrophil-activating peptide(s) - for imaging
PT targeted delivery of radioactive agent
PS Example 10; Column 19-20; 15pp; English.
CC W11131 represents mature human monocyte chemoattractant protein-1
CC (MCP-1). MCP-1 was radionuclide labeled and used in a method for
CC imaging a target site in vivo in an animal. Labeled MCP-1 was allowed
CC to accumulate at a target site (having MCP-1 receptors) in the animal
CC and detected so as to image the target site. Any Cys-Cys or Cys-Xaa-Cys
CC chemokine carrying either iodine-123 or iodine-131 can be used in the
CC method. Especially preferred is neutrophil activating peptide-2 (NAP-2)
CC which recognises interleukin-8 receptors and is labelled with
CC technetium-99m, indium-111, copper-62, rhenium-186 or rhenium-188.
CC The method can be used for imaging a site of infection, inflammation,

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CC neoplasm, atheromatous lesion or restenosis.
SQ Sequence 76 AA;

Query Match      87.1%; Score 88; DB 21; Length 76;
Best Local Similarity 83.3%; Pred. No. 3.92e-02;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db      50 eicadpkykxwq 61
QY      1 EICLDPKOKWIO 12

RESULT 16
ID R86859 standard; Protein; 77 AA.
AC R86859;
DR 20-MAR-1996 (first entry)
DE Mature MCP-1.
KW Antisense; monocyte chemotactic protein-1; MCP-1;
KW "C-C" family; chemoattractant cytokine; chemokine; stimulation;
KW monocyte; chemotaxis; vascular smooth muscle cell; macrophage;
KW proliferation; restenosis; balloon angioplasty.
OS Homo sapiens.
PN WO9519167-A1.
PD 20-JUL-1995.
PF 13-JAN-1995; U00605.
PR 14-JAN-1994; US-182917.
PA (MHCW ) MALLINCKRODT MEDICAL INC.
PI Lyle LR, Thomas-Miller B;
DR WPI: 95-263703/34.
DR N-PSDB: T03528.
PT New anti-sense oligo:nucleotide(s) and peptide(s) for inhibiting
PT restenosis - are directed against C-C family cytokine(s) such as
PT monocyte chemotactic protein, opt. radio:labelled for therapy or
PT imaging
PS Disclosure; Page 5; 50pp; English.
CC This sequence represents the mature form of monocyte chemotactic
CC protein-1 (MCP-1). MCP-1 is a member of the "C-C" family of
CC chemoattractant cytokines or chemokines. It is a potent stimulator
CC of monocyte chemotaxis and has an extremely high degree of specificity
CC for this cell type. MCP-1 is produced by injured vascular smooth muscle
CC cells and attracts the monocytes and macrophages which infiltrate the
CC area, releasing growth factors and resulting in proliferation of vascular
CC smooth muscle and restenosis. Nucleic acid molecules which are antisense
CC to the MCP-1 mRNA may be used to inhibit translation of MCP-1 and so may
CC be useful for inhibiting vascular restenosis, partic. following balloon
CC angioplasty or a related process. The molecule may be radiolabelled to
CC increase its therapeutic effect or for imaging areas of potential
CC restenosis.
SQ Sequence 77 AA;

Query Match      87.1%; Score 88; DB 15; Length 77;
Best Local Similarity 83.3%; Pred. No. 3.92e-02;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db      51 eicadpkykxwq 62
QY      1 EICLDPKOKWIO 12

RESULT 17
ID R73914 standard; protein; 99 AA.
AC R73914;
DR 05-DEC-1995 (first entry)
DE Human monocyte chemoattractant factor hMCP-1.
KW Human monocyte chemoattractant factor; hMCP-1; chemokine; vaccine;
KW meningitis related homologous antigenic sequence; MRHAS; RV-1;
KW immunoassay; diagnosis; treatment; prophylactic; bacterial;
KW viral.
OS Homo sapiens.
PN WO9509232-A.
PD 06-APR-1995.
PF 28-SEP-1994; CA0516.
PR 28-SEP-1993; US-127499.

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PA (SHAR/) SHARMA L. R.
 PA (VALS/) VAN ALSTYNE D.
 PI Sharma LR, Van Alstyne D;
 DR WPI: 95-147431/19.
 PT New peptide(s) and corresp. antibodies for the treatment of
 PT meningitis - the peptide(s) corresp. to homologous antigenic
 PT sites on bacterial and viral agents and on chemokine(s), used for
 PT detecting and preventing meningitis
 PS Claim 47; Fig 8/10; 98pp; English.
 CC R73914 is the chemokine Human monocyte chemoattractant factor hMCP-1.
 CC It contains the meningitis related antigenic sequences (MRHAS) claimed
 CC in R73895 and R73907, which are recognised by a monoclonal antibody
 CC from the hybridoma Rubella virus (RV)-1. The claimed MRHAS peptides
 CC may be used in immunoassays to diagnose the presence of bacterial
 CC and/or viral meningitis agents in a sample, or in prophylactic and
 CC therapeutic meningitis treatments. The peptides may also be used as
 CC vaccines against meningitis.
 CC NB: Identified by matching corresponding MRHAS peptides.
 SQ Sequence 99 AA;

Query Match 87.1%; Score 88; DB 14; Length 99;
 Best Local Similarity 83.3%; Pred. No. 3.92e-02;
 Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

DB 73 elcadvkqkqvq 84
 ||| |||||:|
 QY 1 EICLDPKQKWIQ 12

RESULT 18
 ID R70800 standard; Protein: 99 AA.

AC R70800;
 DT 29-AUG-1995 (first entry)
 DE Chemoattractant protein MCP-1.
 KM MCP-1; chemoattractant; heparanase; heparin; heparan sulfate;
 OS arthritits; restenosis; cancer; wound healing.
 OS Homo sapiens.
 PN WO9504158-A.
 PD 09-FEB-1995.
 PF 26-JUL-1994; U08207.
 PR 29-JUL-1993; US-099866.
 PR 13-OCT-1993; US-136117.
 PA (UPJO) UPJOHN CO.
 PI Hoogwerf AJ, Ledbetter SR;
 DR WPI: 95-082239/11.
 DR N-PSDB; Q85370.
 PT Screening for cpds. with anti-heparanase activity - by detecting
 PT inhibition of heparin or heparan sulphate degradation,
 PT potentially useful for treating arthritits, restenosis, cancer.
 PS Claim 13; Page 49; 60pp; English.
 CC Purified heparanases, prepared under reducing conditions and
 CC activated with transglutaminase, are given in R70786-804. Most
 CC are prepared by reverse transcription of mRNA from activated human
 CC leukocytes, then cloning of the cDNA into pVL1392 baculovirus
 CC vector, and expression in Sf9 cells in the presence of reduced
 CC glutathione and dithiothreitol.
 SQ Sequence 99 AA;

Query Match 87.1%; Score 88; DB 13; Length 99;
 Best Local Similarity 83.3%; Pred. No. 3.92e-02;
 Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

DB 73 elcadvkqkqvq 84
 ||| |||||:|
 QY 1 EICLDPKQKWIQ 12

RESULT 19
 ID P95387 standard; protein: 99 AA.
 AC P95387;
 DT 25-JUL-1989 (first entry)
 DE Human monocyte chemo-attractant peptide-1.
 KW Human monocyte chemo-attractant peptide; inflammatory disease; neoplasms.

OS Homo sapiens.
 FH Key Location/Qualifiers
 FT protein 24..99
 FT /Product=MCP-1

PN US7330446-A.
 PD 25-JUL-1989.
 PF 30-MAR-1989; 330446.
 PR 30-MAR-1989; US-330446.
 PA (USSH) US Dept. Health and Human.
 PI Yoshimura T, Robinson EA, Appella E, Leonard EJ;
 DR WPI: 89-300683/41.
 DR N-PSDB; N91337.

PT Human derived monocyte chemo-attractant peptide prods. - obtd. from human
 PT glioma cell line U-105MG or peripheral blood mononuclear leukocytes.
 PS Disclosure; fig 2; 66pp; English.
 CC This is a human-derived monocyte chemo-attractant peptide (MCP-1) sequence
 CC MCP-1 exhibits optimal chemotactic activity at a concn. of 1nM and has a
 CC mol. mass of c.a. 8,400 D. MCP-1 can be used for treating infection eg
 CC inflammatory disease, or for the control of neoplasms by accumulation of
 CC monocytes at the site of the infection. The corresp. DNA is obtd. by
 CC chemical synthesis, by screening reverse transcripts of mRNA from
 CC purified blood leukocytes or cell cultures of eg U-373 MG or KMG-5.
 SQ Sequence 99 AA;

Query Match 87.1%; Score 88; DB 2; Length 99;
 Best Local Similarity 83.3%; Pred. No. 3.92e-02;
 Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

DB 73 elcadvkqkqvq 84
 ||| |||||:|
 QY 1 EICLDPKQKWIQ 12

RESULT 20
 ID R28663 standard; Protein: 99 AA.

AC R28663;
 DT 24-MAR-1993 (first entry)
 DE MCF.
 KM plasmid; monocyte chemotactic factor; MCF; translation;
 KM termination; terminator; initiation; ribosome binding site;
 KW RBS; promoter; tryptophan; repressor.
 OS Synthetic.
 FH Key Location/Qualifiers
 FT peptide 1..23
 FT /label= sig_peptide
 FT protein 24..99
 FT /label= mat_protein
 PN WO9219737-A.
 PD 12-NOV-1992.
 PF 27-APR-1992; J00550.
 PR 09-MAY-1991; JP-135950.
 PA (DAIN) DAINIPPON PHARM CO LTD.
 PI Fukui T, Matsuo N, Yamada M, Yamagishi J;
 DR WPI: 92-396864/48.
 DR N-PSDB; Q30748.
 PT Prodn. of polypeptide(s) having monocyte chemotactic activity -
 PT using expression plasmids with E. coli elements and specific
 PT E. coli strains
 PS Disclosure; Page 43-44; 56pp; English.
 CC An expression plasmid, pMCO76 for producing MCF(76) consisting
 CC of 76 amino acids was constructed. DNA encoding MCF(76) was
 CC prep. using a recombinant plasmid pMCF7.
 SQ Sequence 99 AA;

Query Match 87.1%; Score 88; DB 5; Length 99;
 Best Local Similarity 83.3%; Pred. No. 3.92e-02;
 Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

DB 73 elcadvkqkqvq 84
 ||| |||||:|
 QY 1 EICLDPKQKWIQ 12

RESULT 21
ID R20237 standard; Protein; 29 AA.
AC R20237;
DE NAF(44-72) peptide inhibitor of neutrophil activating factor.
KW bronchitis; neutrophil chemotaxis; ARDS.
OS Synthetic.
PN US3079228-A.
PM 07-JAN-1992.
PR 05-FEB-1990; 475658.
PS 05-FEB-1990; US-475658.
PA (TEXA) UNIV OF TEXAS SYST.
PI Cohen AB, Miller EJ, Nagao S, Carr FK;
DR WPI: 92-041038/05.
PT New peptide inhibitors of neutrophil activating factor - which
PT inhibit chemotaxis, for treating adult respiratory distress
PT syndrome and other inflammatory lesions caused by NAF
PS Claim 8; column 9; 11pp; English.
CC NAF(44-72) is a preferred peptide derived from NAF which is
CC antagonistic to NAF and has no chemotactic activity. It inhibited
CC NAF-induced migration by 34 per cent. When used with a second
CC preferred peptide, i.e. NAF(3-25) (see R20236) inhibition was 70
CC per cent.
SQ Sequence 29 AA;
Query Match 83.2%; Score 84; DB 4; Length 29;
Best Local Similarity 66.7%; Pred. No. 1.05e-01;
Matches 8; Conservative 4; Mismatches 0; Indels 0; Gaps 0;
Db 5 elcdlpgkenwvq 16
1:|||||:|
QY 1 EICLDPRKQKMIQ 12
RESULT 22
ID W04515 standard; peptide; 39 AA.
AC W04515;
DE 30-JUL-1997 (first entry)
DE Interleukin-8(34-72) used in novel synthesis method.
KW Thioester; synthesis; ligation; catalysis; thiol; condensation;
KW link; beta-aminothioester; bond; amide; production; disulphide;
KW refolding; oxidation; interleukin 8; IL-8.
OS Synthetic.
PN W09634878-A1.
PM 07-NOV-1996.
PR 04-MAY-1995; U05668.
PS 04-MAY-1995; WO-U05668.
PA (SCRI) SCRIPPS RES INST.
PI Dawson PE, Kent SBH, Muir TW;
DR WPI: 96-506095/50.
PT Synthesis of protein by chemical ligation of unprotected peptide(s)
PT - by reaction of N-terminal Cys with C-terminal thioester and
PT spontaneous rearrangement of intermediate prod.
PS Example 3; Page 47; 61pp; English.
CC The present peptide, which has an amino-terminal cysteine residue,
CC was used in a novel synthesis method, comprising the ligation of a
CC 1st oligopeptide (OP) to a 2nd OP, end to end, to produce an OP
CC product. This comprises mixing the 1st and 2nd OP (which have a
CC carboxy-terminal thioester and an amino-terminal Cys with an
CC unoxidised SH side chain) in a solution containing a catalytic
CC thiol, condensing the terminal groups to form an intermediate OP,
CC in which components are linked by a beta-aminothioester bond and
CC rearranging the bond to give a product OP linked by an amide bond.
CC The method can be used for the production of full length proteins,
CC which can be made into native, disulphide containing proteins by
CC refolding and oxidation. The method also combines chemoselective,
CC unprotected, peptide reactions, with native peptide bond formation,
CC increasing the size of protein that can be made by chemical
CC synthesis.
SQ Sequence 39 AA;
Query Match 83.2%; Score 84; DB 22; Length 39;
Best Local Similarity 66.7%; Pred. No. 1.05e-01;

Matches 8; Conservative 4; Mismatches 0; Indels 0; Gaps 0;
Db 15 elcdlpgkenwvq 26
1:|||||:|
QY 1 EICLDPRKQKMIQ 12
RESULT 23
ID R38087 standard; protein; 67 AA.
AC R38087;
DE 13-OCT-1993 (first entry)
DE Modified human interleukin-8 analogue (3-69).
KW Analogues; modified; neutrophil activators; antagonists; human;
KW competitive antagonist; IL-8; inflammation; treatment; chemotaxis;
KW activity; stimulation; inflammatory response.
OS Synthetic.
PN W09311159-A.
PM 10-JUN-1993.
PR 03-DEC-1992; CA0528.
PS 04-DEC-1991; US-801578.
PA (BIOM-) BIOMEDICAL RES CENT LTD.
PI Clark-Lewis I, Moser B;
DR WPI: 93-196997/24.
PT New interleukin-8 analogues modified in specified region - used as
PT neutrophil activators or for blocking effect of IL-8 on neutrophil(s)
PT for treatment of inflammation
PS Claim 23; Page 30; 47pp; English.
CC The sequence is that of an analogue of interleukin-8 (IL-8) comprising
CC IL-8 residues 3-69. It is able to bind neutrophils and act as a
CC competitive antagonist of IL-8, i.e. it can be used to treat
CC inflammation, e.g. by intravenous injection or oral admin. It can
CC act as a neutrophil activator and so can be used to stimulate an
CC inflammatory response.
SQ Sequence 67 AA;
Query Match 83.2%; Score 84; DB 7; Length 67;
Best Local Similarity 66.7%; Pred. No. 1.05e-01;
Matches 8; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

Db 46 elcdlpgkenwvq 57
1:|||||:|
QY 1 EICLDPRKQKMIQ 12
RESULT 24
ID R38086 standard; protein; 67 AA.
AC R38086;
DE 13-OCT-1993 (first entry)
DE Modified human interleukin-8 analogue (6-72).
KW Analogues; modified; neutrophil activators; antagonists; human;
KW competitive antagonist; IL-8; inflammation; treatment; chemotaxis;
KW activity; stimulation; inflammatory response.
OS Synthetic.
PN W09311159-A.
PM 10-JUN-1993.
PR 03-DEC-1992; CA0528.
PS 04-DEC-1991; US-801578.
PA (BIOM-) BIOMEDICAL RES CENT LTD.
PI Clark-Lewis I, Moser B;
DR WPI: 93-196997/24.
PT New interleukin-8 analogues modified in specified region - used as
PT neutrophil activators or for blocking effect of IL-8 on neutrophil(s)
PT for treatment of inflammation
PS Claim 19; Page 29; 47pp; English.
CC The sequence is that of an analogue of interleukin-8 (IL-8) comprising
CC IL-8 residues 6-72. It is able to bind neutrophils and act as a
CC competitive antagonist of IL-8, i.e. it can be used to treat
CC inflammation, e.g. by intravenous injection or oral admin. It can
CC act as a neutrophil activator and so can be used to stimulate an
CC inflammatory response.
SQ Sequence 67 AA;
Query Match 83.2%; Score 84; DB 7; Length 67;

Best Local Similarity 66.7%; Pred. No. 1.05e-01;
Matches 8; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

DB 43 elcldpkenwvq 54
1:|||||:|
QY 1 EICLDPKQKMIQ 12

RESULT 25
ID R38085 standard; protein: 68 AA.
AC R38085;

DE 13-OCT-1993 (first entry)
KW Analogues; modified; neutrophil activators; antagonists; human;
KM competitive antagonist; IL-8; inflammation; treatment; chemotaxis;
OS activity; stimulation; inflammatory response.
SYNTHETIC.

PN WO9311159-A.
PD 10-JUN-1993.
PF 03-DEC-1992; CA0528.
PR 04-DEC-1991; US-801578.
PA (BIOM-) BIOMEDICAL RES CENT LTD.
PI Clark-Lewis I, Moser B;
DR MPI; 93-196997/24.

PT New interleukin-8 analogues modified in specified region - used as
neutrophil activators or for blocking effect of IL-8 on neutrophil(s)
for treatment of inflammation

PS Claim 17; Page 29; 47pp; English.

CC The sequence is that of an analogue of interleukin-8 (IL-8) comprising
IL-8 residues 5-72. It is able to bind neutrophils and act as a

CC competitive antagonist of IL-8, i.e. it can be used to treat
inflammation, e.g. by intravenous injection or oral admin. It can
act as a neutrophil activator and so can be used to stimulate an
inflammatory response. It also has strong chemotaxis activity and
can be used to attract neutrophils to a diseased area.

CC Sequence 68 AA;

Query Match 83.2%; Score 84; DB 7; Length 68;

Best Local Similarity 66.7%; Pred. No. 1.05e-01;
Matches 8; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

DB 44 elcldpkenwvq 55
1:|||||:|
QY 1 EICLDPKQKMIQ 12

RESULT 26
ID R38083 standard; protein: 68 AA.
AC R38083;

DE 13-OCT-1993 (first entry)
KW Analogues; modified; neutrophil activators; antagonists; human;
KM competitive antagonist; IL-8; inflammation; treatment; chemotaxis;
OS activity; stimulation; inflammatory response.
SYNTHETIC.

PN WO9311159-A.
PD 10-JUN-1993.
PF 03-DEC-1992; CA0528.
PR 04-DEC-1991; US-801578.
PA (BIOM-) BIOMEDICAL RES CENT LTD.
PI Clark-Lewis I, Moser B;
DR MPI; 93-196997/24.

PT New interleukin-8 analogues modified in specified region - used as
neutrophil activators or for blocking effect of IL-8 on neutrophil(s)
for treatment of inflammation

PS Claim 15; Page 29; 47pp; English.

CC The sequence is that of an analogue of interleukin-8 (IL-8) comprising
IL-8 residues 1155 (6-72). It is able to bind neutrophils and act
as a competitive antagonist of IL-8, i.e. it can be used to treat
inflammation, e.g. by intravenous injection or oral admin. It can

CC act as a neutrophil activator and so can be used to stimulate an
inflammatory response.
CC Inflammation response.
SQ Sequence 68 AA;

Query Match 83.2%; Score 84; DB 7; Length 68;
Best Local Similarity 66.7%; Pred. No. 1.05e-01;
Matches 8; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

DB 44 elcldpkenwvq 55
1:|||||:|
QY 1 EICLDPKQKMIQ 12

RESULT 27
ID R38084 standard; protein: 68 AA.
AC R38084;

DE 13-OCT-1993 (first entry)
KW Analogues; modified; neutrophil activators; antagonists; human;
KM competitive antagonist; IL-8; inflammation; treatment; chemotaxis;
OS activity; stimulation; inflammatory response.
SYNTHETIC.

PN WO9311159-A.
PD 10-JUN-1993.
PF 03-DEC-1992; CA0528.
PR 04-DEC-1991; US-801578.
PA (BIOM-) BIOMEDICAL RES CENT LTD.
PI Clark-Lewis I, Moser B;
DR MPI; 93-196997/24.

PT New interleukin-8 analogues modified in specified region - used as
neutrophil activators or for blocking effect of IL-8 on neutrophil(s)
for treatment of inflammation

PS Claim 16; Page 29; 47pp; English.

CC The sequence is that of an analogue of interleukin-8 (IL-8) comprising
IL-8 residues 615 (6-72). It is able to bind neutrophils and act
as a competitive antagonist of IL-8, i.e. it can be used to treat
inflammation, e.g. by intravenous injection or oral admin. It can
act as a neutrophil activator and so can be used to stimulate an
inflammatory response.

CC Sequence 68 AA;

Query Match 83.2%; Score 84; DB 7; Length 68;

Best Local Similarity 66.7%; Pred. No. 1.05e-01;
Matches 8; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

DB 44 elcldpkenwvq 55
1:|||||:|
QY 1 EICLDPKQKMIQ 12

RESULT 28
ID R38081 standard; protein: 69 AA.
AC R38081;

DE 13-OCT-1993 (first entry)
KW Analogues; modified; neutrophil activators; antagonists; human;
KM competitive antagonist; IL-8; inflammation; treatment; chemotaxis;
OS activity; stimulation; inflammatory response.
SYNTHETIC.

PN WO9311159-A.
PD 10-JUN-1993.
PF 03-DEC-1992; CA0528.
PR 04-DEC-1991; US-801578.
PA (BIOM-) BIOMEDICAL RES CENT LTD.
PI Clark-Lewis I, Moser B;
DR MPI; 93-196997/24.

PT New interleukin-8 analogues modified in specified region - used as
neutrophil activators or for blocking effect of IL-8 on neutrophil(s)
for treatment of inflammation

PS Claim 9; Page 29; 47pp; English.

CC The sequence is that of an analogue of interleukin-8 (IL-8) comprising
 CC IL-8 residues 4-72. It is able to bind neutrophils and act as a
 CC competitive antagonist of IL-8, i.e. it can be used to treat
 CC inflammation, e.g. by intravenous injection or oral admin. It can
 CC act as a neutrophil activator and so can be used to stimulate an
 CC inflammatory response.
 SQ Sequence 69 AA.

Query Match 83.2%; Score 84; DB 7; Length 69;
 Best Local Similarity 66.7%; Pred. No. 1.05e-01;
 Matches 8; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

Db 45 elcidpkenwq 56
 1:|||||:|:|
 QY 1 EICLDPKQKWIO 12

RESULT 29
 ID R38082 standard; protein; 69 AA.
 AC R38082;
 DT 13-OCT-1993 (first entry)
 DE Modified human interleukin-8 analogue Ala4Aa5 (6-72).
 KW Analogues; modified; neutrophil activators; antagonists; human;
 KM competitive antagonist; IL-8; inflammation; treatment; chemotaxis;
 OS activity; stimulation; inflammatory response.
 FH Synthetic.
 FT Key
 FT region 1 Location/Qualifiers
 FT region 2 /note= "Glu4 -> Ala"
 FT /note= "Leu5 -> Ala"
 LN WO931159-A.
 PD 10-JUN-1993.
 PF 03-DEC-1992; CA0528.
 PR 04-DEC-1991; US-801578.
 PA (BIOM-) BIOMEDICAL RES CENT LTD.
 PI Clark-Lewis I, Moser B;
 DR WPI: 93-19697/24.
 PT New interleukin-8 analogues modified in specified region - used as
 PT neutrophil activators or for blocking effect of IL-8 on neutrophil(s)
 PT for treatment of inflammation
 PS Claim 10: Page 29; 47pp: English.
 CC The sequence is that of an analogue of interleukin-8 (IL-8) comprising
 CC IL-8 residues Ala4Aa5 (6-72). It is able to bind neutrophils and act
 CC as a competitive antagonist of IL-8, i.e. it can be used to treat
 CC inflammation, e.g. by intravenous injection or oral admin. It can
 CC act as a neutrophil activator and so can be used to stimulate an
 CC inflammatory response.
 SQ Sequence 69 AA:

Query Match 83.2%; Score 84; DB 7; Length 69;
 Best Local Similarity 66.7%; Pred. No. 1.05e-01;
 Matches 8; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

Db 45 elcidpkenwq 56
 1:|||||:|:|
 QY 1 EICLDPKQKWIO 12

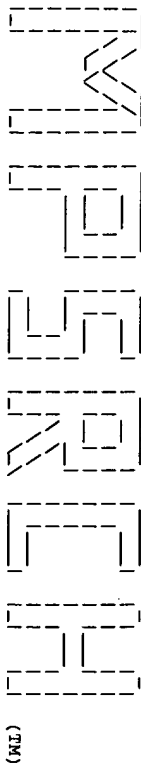
RESULT 30
 ID W22675 standard; Protein; 71 AA.
 AC W22675;
 DT 19-MAR-1998 (first entry)
 DE D1013+ chemokine beta10 or monocyte chemotactic protein 4 variant.
 KW Human; chemokine beta10; CK beta10; treatment; antagonist;
 KW solid tumour; infection; autoimmune disease; asthma; antibody;
 KW fibrotic disease; psoriasis; neurodegenerative disease;
 KW wound healing; hematopoiesis regulation; gene therapy;
 KW chromosome identification; monocyte chemotactic protein 4;
 OS Homo sapiens.
 PN W09731098-A1.
 PD 28-AUG-1997.

PF 23-FEB-1996; U02598.
 PR 23-FEB-1996; WO-U02598.
 PA (HUMA-) HUMAN GENOME SCI INC.
 PI Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
 PI Parmelee D, White J;
 DR WPI: 97-435153/40.
 FT Polypeptide encoding chemokine beta 4 and monocyte chemotactic
 FT protein 4 - useful to treat tumours, autoimmune disease, infection,
 PT asthma and fibrosis
 PS Example 11: Fig 5; 83pp: English.
 CC The present sequence is human chemokine beta10 (CK beta10) or
 CC monocyte chemotactic protein 4 (MCP-4) D1013+ variant, which can
 CC be used to treat patients deficient in CK beta10, while a CK beta10
 CC antagonist can be used to reduce excessive levels of CK beta10. CK
 CC beta10 can be used to treat leukaemia, solid tumours, chronic or
 CC opportunistic infections, autoimmune diseases, asthma, fibrotic
 CC diseases, psoriasis and neurodegenerative diseases. It also
 CC promotes wound healing, regulates hematopoiesis and generates
 CC antibodies. Labelled CK beta10 can be used to identify its cognate
 CC receptor, while cells expressing the receptor can be used to screen
 CC compounds for (ant)agonist activity. The antagonist can be used to
 CC treat rheumatoid arthritis, autoimmune, chronic inflammatory or
 CC infectious diseases, allergies, prostaglandin dependent fever and
 CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
 CC syndrome, lung inflammation and atherosclerosis. CK beta10 cDNA can
 CC be used to isolate genes encoding similar peptides, in gene therapy
 CC and for chromosome identification.
 SQ Sequence 71 AA:

Query Match 83.2%; Score 84; DB 27; Length 71;
 Best Local Similarity 75.0%; Pred. No. 1.05e-01;
 Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 45 elcadpkekwq 56
 ||| |||:|:|
 QY 1 EICLDPKQKWIO 12

Search completed: Thu Apr 1 07:46:32 1999
 Job time : 30 secs.



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MSPcrh_pp protein - protein database search, using Smith-Waterman algorithm

Run on: Thu Apr 1 07:45:27 1999; Maspar time 3.43 Seconds

Tabular output not generated. 131.151 Million cell updates/sec

Title: >US-08-927-939-14
Description: (1-12) from US08927939.pep
Perfect Score: 101
Sequence: 1 EICLDPKQKWIQ 12

Scoring table: PAM 150
Gap 15

Searched: 116738 segs, 37463448 residues

Post-processing: Minimum Match 0%
Listing first 100 summaries

Database: p1r58
1: p1r1 2: p1r2 3: p1r3 4: p1r4

Statistics: Mean 25.334; Variance 37.630; scale 0.673

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description	Pred. No.
1	93	92.1	95	2	Interleukin-8 - dog	2.88e-07
2	93	92.1	101	2	Interleukin 8 - sheep	2.88e-07
3	93	92.1	101	2	Interleukin-8 - sheep	2.88e-07
4	93	92.1	103	2	Interleukin-8 precurs	2.88e-07
5	93	92.1	103	2	Interleukin-8 precurs	2.88e-07
6	90	89.1	101	2	Interleukin-8 - rabbit	3.30e-06
7	88	87.1	99	2	monocyte chemoattract	5.73e-05
8	87	86.1	99	2	monocyte chemoattract	5.73e-05
9	84	83.2	99	2	Interleukin-8 precurs	2.49e-05
10	84	83.2	101	2	Neutrophil attractant	2.49e-05
11	83	82.2	99	2	monocyte chemoattract	4.05e-05
12	83	82.2	99	2	monocyte chemoattract	4.05e-05
13	82	81.2	105	2	monocyte chemoattract	6.56e-05
14	81	80.2	109	2	monocyte chemoattract	1.06e-04
15	80	79.2	89	2	pre-B-cell growth-sti	1.71e-04
16	80	79.2	89	2	Interleukin-8 homolo	1.71e-04
17	80	79.2	93	2	cytokine SDF-1-beta	1.71e-04
18	80	79.2	93	2	cytokine - mouse	1.71e-04
19	79	78.2	99	2	monocyte chemoattract	2.76e-04
20	79	78.2	120	2	monocyte chemoattract	2.76e-04
21	77	76.2	97	2	ectatin - human	7.10e-04
22	75	74.3	96	2	ectatin precursor - g	1.81e-03
23	75	74.3	96	2	ectatin - rat	1.81e-03

24	74	73.3	92	2	IS2322	2.88e-03
25	73	72.3	99	2	JC5295	4.56e-03
26	72	71.3	103	2	IS0417	7.21e-03
27	72	71.3	103	2	A26736	7.21e-03
28	71	70.3	148	2	A30209	1.14e-02
29	67	66.3	92	2	A32393	6.80e-02
30	67	66.3	148	2	S07723	6.80e-02
31	65	64.4	91	2	A46539	1.63e-01
32	64	63.4	97	2	A48093	2.52e-01
33	63	62.4	50	2	C60407	3.86e-01
34	63	62.4	92	2	A31767	3.86e-01
35	63	62.4	92	2	A30574	3.86e-01
36	63	62.4	93	2	B35673	3.86e-01
37	60	59.4	120	2	JE0177	1.37e+00
38	60	59.4	96	2	I46730	1.37e+00
39	60	59.4	126	2	G65065	1.37e+00
40	59	58.4	85	2	C53387	2.07e+00
41	59	58.4	91	2	A28815	2.07e+00
42	59	58.4	114	2	ETMSL	2.07e+00
43	59	58.4	201	2	VAR	2.07e+00
44	58	57.4	769	2	I49009	3.11e+00
45	58	57.4	770	2	A54444	3.11e+00
46	58	57.4	770	2	I49508	3.11e+00
47	57	56.4	760	2	S55520	4.67e+00
48	57	56.4	899	2	G02428	4.67e+00
49	57	56.4	915	2	B48225	4.67e+00
50	57	56.4	915	2	A48225	4.67e+00
51	57	56.4	915	2	JC6148	4.67e+00
52	56	55.4	281	2	S61201	6.97e+00
53	56	55.4	284	2	S13676	6.97e+00
54	56	55.4	284	2	S13676	6.97e+00
55	55	54.5	338	2	A64618	1.03e+01
56	55	54.5	916	2	A38418	1.03e+01
57	54	53.5	192	2	E71437	1.53e+01
58	54	53.5	136	2	E64101	1.53e+01
59	54	53.5	449	2	A48939	1.53e+01
60	54	53.5	627	2	C69637	1.53e+01
61	54	53.5	681	2	JX0338	1.53e+01
62	54	53.5	684	2	I58166	1.53e+01
63	53	52.5	92	2	C30552	2.25e+01
64	53	52.5	117	2	B44253	2.25e+01
65	53	52.5	117	2	S57175	2.25e+01
66	53	52.5	140	2	WMVZM3	2.25e+01
67	53	52.5	145	2	S76877	2.25e+01
68	53	52.5	178	2	F69804	2.25e+01
69	53	52.5	209	2	G69321	2.25e+01
70	53	52.5	227	2	MAIYX9	2.25e+01
71	53	52.5	262	2	A26324	2.25e+01
72	53	52.5	408	2	H65137	2.25e+01
73	53	52.5	1053	2	D71466	2.25e+01
74	53	52.5	1827	2	UUHU	2.25e+01
75	53	51.5	114	2	ETHUL	3.29e+01
76	52	51.5	187	2	C71317	3.29e+01
77	52	51.5	187	2	D42465	3.29e+01
78	52	51.5	260	2	B26325	3.29e+01
79	52	51.5	260	2	NDBOA	3.29e+01
80	52	51.5	357	2	HIMS37	3.29e+01
81	52	51.5	455	2	S56695	3.29e+01
82	52	51.5	460	2	E64019	3.29e+01
83	52	51.5	470	2	S72279	3.29e+01
84	52	51.5	485	2	S19677	3.29e+01
85	52	51.5	485	2	A35516	3.29e+01
86	52	51.5	575	2	S22595	3.29e+01
87	52	51.5	677	2	S65573	3.29e+01
88	52	51.5	768	2	A56334	3.29e+01
89	52	51.5	905	2	A27410	3.29e+01
90	52	51.5	955	2	A39216	3.29e+01
91	52	51.5	1118	2	S57833	3.29e+01
92	51	50.5	152	2	S38249	4.80e+01
93	51	50.5	200	2	F69047	4.80e+01
94	51	50.5	281	2	S39495	4.80e+01
95	51	50.5	505	2	S38534	4.80e+01
96	51	50.5	506	2	PIWLB4	4.80e+01

macrophage inflammato	2.88e-03
monocyte chemoattract	4.56e-03
RSV-induced protein -	7.21e-03
transformation-induce	7.21e-03
PDGF-inducible JE gly	1.14e-02
macrophage inflammato	6.80e-02
immediate-early serum	6.80e-02
monocyte chemoattract	1.63e-01
monocytic cytokine FI	2.52e-01
monocyte adherence-in	3.86e-01
macrophage inflammato	3.86e-01
macrophage inflammato	3.86e-01
LD78-beta protein pre	3.86e-01
lymphocyte and monocy	3.86e-01
immune activation gen	1.37e+00
hypothetical protein	1.37e+00
regulatory protein ko	2.07e+00
monocyte chemoattract	2.07e+00
lymphotactin precurs	2.07e+00
plasma retinol-bindin	3.11e+00
APRF - mouse	3.11e+00
DNA-binding protein A	3.11e+00
ISGF3 p1-related tra	4.67e+00
Chitin synthetase I -	4.67e+00
prohormone convertase	4.67e+00
probable proteoglycan	4.67e+00
subtilisin-like prope	4.67e+00
subtilisin-like prope	4.67e+00
hypothetical protein	6.97e+00
deoxyribonuclease I (	6.97e+00
genome polyprotein -	6.97e+00
hypothetical protein	1.03e+01
jockey protein 2 - fr	1.53e+01
probable resistance g	1.53e+01
invasion protein - Ha	1.53e+01
cellulohydroxylase 1-1	1.53e+01
DNA gyrase-like prote	1.53e+01
rabphilin-3A - mouse	1.53e+01
rabphilin-3A - rat	1.53e+01
macrophage inflammato	2.25e+01
alveolar macrophage c	2.25e+01
hypothetical protein	2.25e+01
HM3 protein - sheep p	2.25e+01
hypothetical protein	2.25e+01
hypothetical protein	2.25e+01
conserved hypothetical	2.25e+01
nonstructural protein	2.25e+01
deoxyribonuclease I (	2.25e+01
hypothetical 45.1 kD	2.25e+01
probable ribonucleosi	2.25e+01
sucrose alpha-glucosi	3.29e+01
lymphotactin precurs	3.29e+01
hypothetical protein	3.29e+01
polarity suppressio	3.29e+01
deoxyribonuclease I (	3.29e+01
deoxyribonuclease I (	3.29e+01
MHC class I histocomp	3.29e+01
1-aminocyclopropane-1	3.29e+01
hypothetical protein	3.29e+01
conserved hypothetical	3.29e+01
1-aminocyclopropane-1	3.29e+01
1-aminocyclopropane-1	3.29e+01
phosphate-specific tr	3.29e+01
rat guanine nucleotid	3.29e+01
plasma cell membrane	3.29e+01
transmembrane protein	3.29e+01
hypothetical protein	4.80e+01
hypothetical protein	4.80e+01
u-plasminogen activat	4.80e+01
cytochrome P450 76A2	4.80e+01
LI protein - bovine p	4.80e+01

[illegible]

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TITLE      interleukin-8 - sheep
ORGANISM   #formal_name Ovis sp. #common_name sheep
DATE       21-Feb-1997 #sequence_revision 21-Feb-1997 #text_change
08-May-1997

ACCESSIONS
REFERENCE   I46997
#authors   Secov, H.F.; Yoshimura, T.; Wood, P.R.; Colditz, I.G.
#journal   Immunol. Cell Biol. (1994) 72:398-405
#title     Cloning, sequencing, expression and inflammatory activity of human
            skin of ovine interleukin-8.

#cross-references GB:S74436; NID:g786590; PID:g786591
#accession I46997
#status    preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues  1-101 #label SEO
#cross-references GB:S74436; NID:g786590; PID:g786591

GENETICS
#gene      oIL-8
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY      #length 101 #molecular_weight 11292 #checksum 294

Query Match      92.1%; Score 93; DB 2; Length 101;
Best Local Similarity 75.0%; Pred. No. 2.88e-07;
Matches          9; Conservative 3; Mismatches 0; Indels 0; Gaps 0.

Db      75 EVCLDPKREKWQ 86
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        1 EICLDPKOKWIO 12

OY      1 EICLDPKOKWIO 12

RESULT      4
ENTRY       A53096 #type complete
TITLE       interleukin-8 precursor - pig
ORGANISM    #formal_name Sus scrofa domestica #common_name domestic pig
DATE        02-Jun-1995 #sequence_revision 02-Jun-1995 #text_change
08-Sep-1997

ACCESSIONS
REFERENCE   A53096
#authors    Lin, G.; Pearson, A.E.; Scamurra, R.W.; Zhou, Y.; Baarsch,
            M.J.; Weiss, D.J.; Murttaugh, M.P.
            J. Biol. Chem. (1994) 269:77-85
            Regulation of interleukin-8 expression in porcine alveolar
            macrophages by bacterial lipopolysaccharide.

#accession  A53096
#status      preliminary
#molecule_type mRNA
#residues    1-103 #label LIN
#cross-references GB:M86923; NID:g164520; PID:g164521
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY      #length 103 #molecular_weight 11633 #checksum 8835

Query Match      92.1%; Score 93; DB 2; Length 103;
Best Local Similarity 75.0%; Pred. No. 2.88e-07;
Matches          9; Conservative 3; Mismatches 0; Indels 0; Gaps 0.

Db      75 EVCLDPKREKWQ 86
        I:|||||:|:|
        1 EICLDPKOKWIO 12

OY      1 EICLDPKOKWIO 12

RESULT      5
ENTRY       A44253 #type complete
TITLE       alveolar macrophage chemotactic factor-1 (AMCF-1)
ORGANISM    #formal_name Sus scrofa domestica #common_name domestic pig
DATE        30-Apr-1993 #sequence_revision 18-Nov-1994 #text_change
23-Feb-1996

ACCESSIONS
REFERENCE   A44253
#authors    Goodman, R.B.; Foster, D.C.; Mathewes, S.L.; Osborn, S.G.;
            Kuljper, J.L.; Forstrom, J.W.; Martin, T.R.
            Biochemistry (1992) 31:10483-10490
            Molecular cloning of porcine alveolar macrophage-derived
            #title     #title

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neutrophil chemotactic factors I and II, identification of
porcine IL-8 and another interleukin-alpha protein.
#cross-references MUID:93041741
#accession A44253
#status Preliminary
#molecule_type mRNA; protein
#residues 1-103 #label GOO
#experimental_source alveolar macrophage
#note sequence extracted from NCBI backbone (NCBI:117415,
NCBI:117416)
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 103 #molecular-weight 11677 #checksum 8904

Query Match 92.1%; Score 93; DB 2; Length 103;
Best Local Similarity 75.0%; Pred. No. 2,88e-07;
Matches 9; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 75 EICLDPKRWQ 86
Oy 1 EICLDPKRWQ 12

RESULT 6
ENTRY #type complete
TITLE Interleukin-8-rabbit
ALTERNATE_NAMES #formal_name Oryctolagus cuniculus #common_name domestic
ORGANISM rabbit
DATE 14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change
09-Aug-1997
ACCESSION I46871, S13052
REFERENCE I46857
#authors Yoshimura, T.; Yuhki, N.
#journal J. Immunol. (1991) 146:3483-3488
#title Neutrophil attractant/activation protein-1 and monocyte
chemoattractant protein-1 in rabbit: cDNA cloning and their
expression in spleen cells.
#cross-references MUID:91225489
#accession I46871
#status Preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-101 #label YOS
#cross-references GB:M57439; NID:g165552; PID:g165553
REFERENCE S13052
#authors Beaudien, B.C.; Collins, P.D.; Jose, P.J.; Totty, N.F.;
#journal Hsuan, J.; Waterfield, M.D.; Williams, T.J.
#journal Biochem. J. (1990) 271:797-801
#title A novel neutrophil chemoattractant generated during an
inflammatory reaction in the rabbit peritoneal cavity in
vivo. Purification, partial amino acid sequence and
structural relationship to interleukin 8.
#cross-references MUID:91058518
#accession S13052
#status Preliminary
#molecule_type protein
#residues 23-33, 'X', 35, 'X', 37-46, 'X', 48-49, 'I', 51-53 #label BEA
CLASSIFICATION #superfamily Beta-thromboglobulin
KEYWORDS cytokine
SUMMARY #length 101 #molecular-weight 11402 #checksum 1085

Query Match 89.1%; Score 90; DB 2; Length 101;
Best Local Similarity 75.0%; Pred. No. 1,30e-06;
Matches 9; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 75 EICLDPKRWQ 86
Oy 1 EICLDPKRWQ 12

RESULT 7
ENTRY #type complete
TITLE monocyte chemoattractant protein 1 precursor - human
ALTERNATE_NAMES GDCF-1; glioma-derived monocyte chemotactic factor 1; MCP-1; monocyte chemotactic factor 1; monocyte secretory

protein; tumor-derived chemotactic factor
glioma-derived chemotactic factor 2 (GDCF-2)
#formal_name Homo sapiens #common_name man
20-Feb-1993 #sequence_revision 20-Feb-1993 #text_change
20-Mar-1998
ACCESSION A35474; A33476; S03339; I51841; A60299; A32300; A32396;
A34561; I57488; JCI096
REFERENCE A35474
#authors Shyy, Y.J.; Li, Y.S.; Kolattukudy, P.E.
#journal Biochem. Biophys. Res. Commun. (1990) 169:346-351
#title Structure of human monocyte chemotactic protein gene and its
regulation by TPA.
#cross-references MUID:90290466
#accession A35474
#molecule_type DNA
#residues 1-99 #label SHY
#cross-references GB:M37719; NID:g187447; PID:g487124
REFERENCE A33476
#authors Rollins, B.J.; Stier, P.; Ernst, T.; Wong, G.G.
#journal Mol. Cell. Biol. (1989) 9:4687-4695
#title The human homolog of the JE gene encodes a monocyte secretory
protein.
#cross-references MUID:90097880
#accession A33476
#molecule_type mRNA
#residues 1-99 #label ROL
#cross-references GB:M30816; GB:M31625; GB:M31626; NID:g188701;
PID:g386961
REFERENCE S03339
#authors Yoshimura, T.; Yuhki, N.; Moore, S.K.; Appella, E.; Lerman,
#journal M.I.; Leonard, E.J.
#journal FEBS Lett. (1989) 244:487-493
#title Human monocyte chemoattractant protein-1 (MCP-1). Full-length
cDNA cloning, expression in mitogen-stimulated blood
mononuclear leukocytes, and sequence similarity to mouse
competence gene JE.
#cross-references MUID:89153605
#accession S03339
#status not compared with conceptual translation
#molecule_type mRNA
#residues 1-99 #label YOS
#cross-references GB:X14768; NID:g34513; PID:g34514
#experimental_source glioma cell line U-105MC
REFERENCE I51841
#authors Yoshimura, T.; Leonard, E.J.
#journal Adv. Exp. Med. Biol. (1991) 305:47-56
#title Human monocyte chemoattractant protein-1 (MCP-1).
#cross-references MUID:92095166
#accession I51841
#status Preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-99 #label YO2
#cross-references GB:S71513; NID:g240867; PID:g240868
REFERENCE A60299
#authors Bottazzi, B.; Colotta, F.; Sica, A.; Nobili, N.; Mantovani,
#journal A.
#journal Int. J. Cancer (1990) 45:795-797
#title A chemoattractant expressed in human sarcoma cells
(tumor-derived chemotactic factor, TDCF) is identical to
monocyte chemoattractant protein-1/monocyte chemotactic and
activating factor (MCP-1/MCAF).
#accession A60299
#status not compared with conceptual translation
#molecule_type mRNA
#residues 1-99 #label BOT
REFERENCE A32300
#authors Furutani, Y.; Nomura, H.; Notake, M.; Oyama, Y.; Fukui, T.;
#journal Yamada, M.; Larsen, C.G.; Openheim, J.J.; Matsushima, K.
#journal Biochem. Biophys. Res. Commun. (1989) 159:249-255
#title Cloning and sequencing of the cDNA for human monocyte
chemotactic and activating factor (MCAF).
#cross-references MUID:89165862
#accession A32300

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##status      not compared with conceptual translation
##molecule_type mRNA
##residues 1-99 ##label FUR
##cross-references GB:M24545; NID:9187434; PID:9307163
REFERENCE
#authors      Robinson, E.A.; Yoshimura, T.; Leonard, E.J.; Tanaka, S.;
#journal      Griffin, P.R.; Shabanowitz, J.; Hunt, D.F.; Appella, E.
#title        Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1850-1854
#journal      Complete amino acid sequence of a human monocyte
#title        Chemotactant, a putative mediator of cellular immune
#cross-references MUID:89184525
#accession    A32396
##molecule_type protein
#residues 'X', 25-99 ##label ROB
REFERENCE
#authors      Decock, B.; Conings, R.; Lenaerts, J.P.; Billiau, A.; Van
#journal      Damme, J.
#title        Biochem. Biophys. Res. Commun. (1990) 167:904-909
#journal      Identification of the monocyte chemotactic protein from human
#title        osteosarcoma cells and monocytes: detection of a novel
#cross-references MUID:90211336
#accession    A34561
##molecule_type protein
#residues 29-33, 'XX', 36-52; 82-92 ##label DEC
REFERENCE
#authors      Li, Y.S.; Shyy, Y.J.; Wright, J.G.; Valente, A.J.; Cornhill,
#journal      J.F.; Kolattukudy, P.E.
#title        Mol. Cell. Biochem. (1993) 126:61-68
#journal      The expression of monocyte chemotactic protein (MCP-1) in
#title        human vascular endothelium in vitro and in vivo.
#cross-references MUID:94150478
#accession    I57488
##status      translated from GB/EMBL/DBJ
##molecule_type mRNA
#residues 1-99 ##label LIX
##cross-references GB:S69738; NID:9545464; PID:9545465
REFERENCE
#authors      Ye, Q.N.; Su, G.F.; Yuan, Y.; Huang, C.F.
#journal      Chinese J. Microbiol. Immunol. (1994) 14:29-32
#title        The PCR, cloning and sequencing of human monocyte
#title        chemotactant protein-1 (MCP-1) gene.
#accession    JCI1096
##molecule_type mRNA
#residues 24-28, 'Q', 30-99 ##label YEO
GENETICS
#gene         GDB:SCYA2
#cross-references GDB:125279; OMIM:158105
#map_position 17q11.2-17q12
CLASSIFICATION
#superfamily macrophage inflammatory protein
KEYWORDS      cytokine; glycoprotein; inflammation; pyroglyutamic acid
FEATURE
1-23          #domain signal sequence #status predicted #label SIG\
24-99         #product monocyte chemotactant protein 1 #status
#experimental #label MAR\
29-99         #status experimental #label MAR2\
#modified_site pyrrolidone carboxylic acid (Gln) (1n
#mature form) #status experimental\
37            #binding_site carbohydrate (Asn) (covalent) #status
#predicted
SUMMARY
#length 99 #molecular-weight 11025 #checksum 7984
Query Match      87.1%; Score 88; DB 2; Length 99;
Best Local Similarity 83.3%; Pred. No. 3,506-06;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

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RESULT      8
ENTRY       JC2136 #type complete
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ORGANISM    #formal_name Sus scrofa domestica #common_name domestic pig
DATE        30-Sep-1993 #sequence_revision 20-Aug-1994 #text_change
08-Sep-1997
ACCESSIONS  JC2136; S57498
REFERENCE   JC2136
#authors     Hosang, K.; Knoke, I.; Klaudiny, J.; Wempe, F.; Wutke, W.;
#journal      Scheit, K.H.
#title        Biochem. Biophys. Res. Commun. (1994) 199:962-968
#journal      Porcine luteal cells express monocyte chemotactant
#title        protein-1 (MCP-1): Analysis by polymerase chain reaction
#accession    and cDNA cloning.
#accession    JC2136
##molecule_type mRNA
#residues 1-99 ##label HOS
REFERENCE   S57497
#authors     Zach, O.
#journal      Submitted to the EMBL Data Library, July 1994
#accession    S57498
#status      preliminary
##molecule_type mRNA
#residues 1-99 ##label ZAC
##cross-references EMBL:X79416; NID:98722312; PID:98722313
CLASSIFICATION
#superfamily macrophage inflammatory protein
KEYWORDS      glycoprotein
FEATURE
1-23          #domain signal sequence #status predicted #label SIG\
24-99         #product monocyte chemotactant protein-1 #status
#predicted #label MAR\
94            #binding_site carbohydrate (Asn) (covalent) #status
#predicted
SUMMARY
#length 99 #molecular-weight 10976 #checksum 9768
Query Match      86.1%; Score 87; DB 2; Length 99;
Best Local Similarity 75.0%; Pred. No. 5,73e-06;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
Db 73 EICADPKOKWQ 84
OY 1 EICADPKOKWQ 12
RESULT      9
ENTRY       A37034 #type complete
TITLE       interleukin-8 precursor - human
ALTERNATE_NAMES
beta-thromboglobulin-like protein; fibroblast-derived
neutrophil-activating factor alpha; lung carcinoma-derived
chemotaxin; lymphocyte-derived neutrophil-activating
factor; monocyte-derived neutrophil chemotactic factor;
monocyte-derived neutrophil-activating factor
ORGANISM    #formal_name Homo sapiens #common_name man
DATE        08-Dec-1992 #sequence_revision 08-Dec-1992 #text_change
13-Sep-1998
ACCESSIONS  A37034; J10041; A32791; S37634; P10107; A28598; A27488;
A39960; A60601; A60591; S15827; S04216; A60567; A60647;
S15417; S03975; I53560; I53992; I37902; S67519
REFERENCE   A37034
#authors     Mukaida, N.; Shiroo, M.; Matsushima, K.
#journal      J. Immunol. (1989) 143:1366-1371
#title        Genomic structure of the human monocyte-derived neutrophil
#title        chemotactic factor IL-8.
#cross-references MUID:89309826
#accession    A37034
##molecule_type DNA
#residues 1-99 ##label MKK
##cross-references GB:M28130; NID:9186367; PID:9186368
#note        the authors failed to translate the last thirty-six
#note        nucleotides of the second exon
REFERENCE   J10041
#authors     Matsushima, K.; Morishita, K.; Yoshimura, T.; Lavu, S.;
#journal      Kobayashi, Y.; Lew, W.; Appella, E.; Kung, H.F.; Leonard,

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#journal      E.J.; Oppenheim, J.J.
#title        J. Exp. Med. (1988) 167:1883-1893
#cross-references EMBL:Y00787; NID:934518; PID:934519
#accession    J10041
#molecule_type mRNA
#residues     1-99 ##label MAL
#note         the sequence shows similarity to several
               platelet-derived factors, a v-src-induced protein, a
               growth-regulated gene product (gro), and an
               IFN-gamma-inducible protein

REFERENCE
#authors      Kowalski, J.; Denhardt, D.T.
#journal      Mol. Cell. Biol. (1989) 9:1946-1957
#title        Regulation of the mRNA for monocyte-derived
               neutrophil-activating peptide in differentiating HU60
               promyelocytes.
#cross-references EMBL:89313739
#accession    A32791
#molecule_type mRNA
#residues     1-99 ##label KOM
#note         #cross-references GB:M26383; NID:9188627; PID:9188628

REFERENCE
#authors      King, C.H.; Gordon, G.S.; Konieczkowski, M.; Sedor, J.R.
#journal      Submitted to the EMBL Data Library, February 1992
#title        S37634
#accession    S37634
#status       preliminary
#molecule_type mRNA
#residues     1-97 ##label KTN
#note         #cross-references EMBL:Z11686; NID:933958; PID:933959

REFERENCE
#authors      Suzuki, K.; Miyasaka, H.; Ota, H.; Yamakawa, Y.; Tagawa, M.;
               Kuramoto, A.; Mizuno, S.
#journal      J. Exp. Med. (1989) 169:1895-1901
#title        Purification and partial primary sequence of a chemotactic
               protein for polymorphonuclear leukocytes derived from human
               lung giant cell carcinoma I065C cells.
#cross-references EMBL:89279141
#accession    P10107
#molecule_type protein
#residues     23-32,'X',35,'X',37-52,'L',54 ##label SUZ
#note         #experimental_source lung giant cell carcinoma I065C

REFERENCE
#authors      Gregory, H.; Young, J.; Schroeder, J.M.; Mrowietz, U.;
               Christophers, E.
#journal      Blochem. Biophys. Res. Commun. (1988) 151:883-890
#title        Structure determination of a human lymphocyte derived
               neutrophil activating peptide (LYNAP).
#cross-references EMBL:88162914
#accession    A28598
#molecule_type protein
#residues     28-99 ##label GRE

REFERENCE
#authors      Walz, A.; Peveri, P.; Aschauer, H.; Baggiolini, M.
#journal      Blochem. Biophys. Res. Commun. (1987) 149:755-761
#title        Purification and amino acid sequencing of NAF, a novel
               neutrophil-activating factor produced by monocytes.
#cross-references EMBL:88106502
#accession    A27488
#molecule_type protein
#residues     28-59 ##label WAL

REFERENCE
#authors      Yoshimura, T.; Matsushima, K.; Tanaka, S.; Robinson, E.A.;
               Appella, E.; Oppenheim, J.J.; Leonard, E.J.
#journal      Proc. Natl. Acad. Sci. U.S.A. (1987) 84:9233-9237
#title        Purification of a human monocyte-derived neutrophil
               chemotactic factor that has peptide sequence similarity to
               other host defense cytokines.
#cross-references EMBL:88097462
#accession    A39960

#molecule_type protein
#residues     28-69 ##label YOS

REFERENCE
#authors      Schroeder, J.M.; Sticherling, M.; Henneicke, H.H.; Preissner,
               W.C.; Christophers, E.
#journal      J. Immunol. (1990) 144:2223-2232
#title        IL-1alpha or tumor necrosis factor-alpha stimulate release of
               three NAP-1/IL-8-related neutrophil chemotactic proteins in
               human dermal fibroblasts.
#cross-references EMBL:90187866
#accession    A60401
#molecule_type protein
#residues     23-32 ##label SCH
#note         #experimental_source dermal fibroblasts
               a minor component of this material (15%) includes an
               additional two amino acids at the amino end

REFERENCE
#authors      Van Damme, J.; Decock, B.; Conings, R.; Lenaerts, J.P.;
               Opdenakker, G.; Billiau, A.
#journal      Eur. J. Immunol. (1989) 19:1189-1194
#title        The chemotactic activity for granulocytes produced by virally
               infected fibroblasts is identical to monocyte-derived
               interleukin 8.
#accession    A60591
#molecule_type protein
#residues     23-33,'X',35,'X',37-42 ##label VAN

REFERENCE
#authors      Nakagawa, H.; Hatakeyama, S.; Ikesue, A.; Miyai, H.
#journal      FEBS Lett. (1991) 282:412-414
#title        Generation of interleukin-8 by plasmin from
               AVPR-interleukin-8, the human fibroblast-derived
               neutrophil chemotactic factor.
#cross-references EMBL:91243843
#accession    S15827
#molecule_type protein
#residues     23-33,'X',35,'X',37-47 ##label FEB

REFERENCE
#authors      Van Damme, J.; Van Beeumen, J.; Conings, R.; Decock, B.;
               Billiau, A.
#journal      Eur. J. Biochem. (1989) 181:337-344
#title        Purification of granulocyte chemotactic peptide/interleukin-8
               reveals N-terminal sequence heterogeneity similar to that
               of beta-thromboglobulin.
#cross-references EMBL:89231715
#accession    S04216
#molecule_type protein
#residues     21-67 ##label VA2

REFERENCE
#authors      Yoshimura, T.; Robinson, E.A.; Appella, E.; Matsushima, K.;
               Showalter, S.D.; Skeel, A.; Leonard, E.J.
#journal      Mol. Immunol. (1989) 26:87-93
#title        Three forms of monocyte-derived neutrophil chemotactic factor
               (MNCF) distinguished by different lengths of the
               amino-terminal sequence.
#accession    A60567
#molecule_type protein
#residues     21-33,'X',35,'X',37-47 ##label YO2
#note         the forms starting from positions 21, 23, and 28
               represented 8%, 47%, and 45%, respectively, of total
               interleukin-8

REFERENCE
#authors      Van Damme, J.; Van Beeumen, J.; Opdenakker, G.; Billiau, A.
#journal      J. Exp. Med. (1988) 167:1364-1376
#title        A novel, NH-2-terminal sequence-characterized human monokine
               possessing neutrophil chemotactic, skin-reactive, and
               granulocytosis-promoting activity.
#accession    A60847
#molecule_type protein
#residues     28-47 ##label VA3

REFERENCE
#authors      Car, B.D.; Baggiolini, M.; Walz, A.
#journal      Blochem. J. (1991) 275:581-584
#title        Formation of neutrophil-activating peptide 2 from

```

platelet-derived connective-tissue-activating peptide III
by different tissue proteinases.

#cross-references MWID:91248085
#accession S15417
#status preliminary
#molecule_type protein
#residues 28-99 ##label CAR

REFERENCE S03975
#authors Golds, E.E.; Mason, P.; Nyirkos, P.
#journal Biochem. J. (1989) 259:585-588
#title Inflammatory cytokines induce synthesis and secretion of gro protein and a neutrophil chemotactic factor but not beta-2-microglobulin in human synovial cells and fibroblasts

#cross-references MWID:89246368
#accession S03975
#molecule_type protein
#residues 23-46 ##label GOL

REFERENCE S15460
#authors Hotta, K.; Hayashi, K.; Ishikawa, J.; Tagawa, M.; Hashimoto, K.; Mizuno, S.; Suzuki, K.
#journal Immunol. Lett. (1990) 24:165-170
#title Coding region structure of interleukin-8 gene of human lung giant cell carcinoma IJ65C cells that produce LUCP/interleukin-8: homogeneity in interleukin-8 genes.
#cross-references MWID:90346419

... remainder of annotations omitted.

Query Match 83.2%; Score 84; DB 2; Length 99;
Best Local Similarity 66.7%; Pred. No. 2.49e-05;
Matches 8; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

Db 75 ELCADPKKRWQ 86
1:|||||:1:1
QY 1 EICLDPKQKMIQ 12

RESULT 10
ENTRY 148148 #type complete
TITLE Neutrophil attractant protein-1 - guinea pig
ORGANISM #formal_name Cavia porcellus #common_name guinea pig
DATE 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 23-Feb-1997
ACCESSIONS 148148
REFERENCE 148148
#authors Yoshimura, T.; Johnson, D.G.
#journal J. Immunol. (1993) 151:6225-6236
#title cDNA cloning and expression of guinea pig neutrophil attractant protein-1 (NAP-1): NAP-1 is highly conserved in guinea pig
#accession MWID:94065176
#accession 148148
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type DNA
#residues 1-101 ##label RES
#cross-references GB:L04986; NID:g459764; PID:g459765

GENETICS
#gene NAP-1
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 101 #molecular-weight 11414 #checksum 2363

Query Match 83.2%; Score 84; DB 2; Length 101;
Best Local Similarity 66.7%; Pred. No. 2.49e-05;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 75 QLCIDPKKRWQ 86
1:|||||1:1
QY 1 EICLDPKQKMIQ 12

RESULT 11
ENTRY A39296 #type complete

TITLE monocyte chemoattractant protein 1 precursor - bovine
ALTERNATE_NAMES monocyte chemotactic factor 1; seminal plasma protein P6
ORGANISM #formal_name Bos primigenius taurus #common_name cattle
DATE 03-Aug-1992 #sequence_revision 03-Aug-1992 #text_change 31-Oct-1997

ACCESSIONS A39296; B39296
REFERENCE A39296
#authors Wempe, F.; Henschen, A.; Scheit, K.H.
#journal DNA Cell Biol. (1991) 10:671-679
#title gene expression and cDNA cloning identified a major basic protein constituent of bovine seminal plasma as bovine monocyte-chemoattractant protein-1 (MCP-1).
#cross-references MWID:92096117
#accession A39296
#molecule_type mRNA
#residues 1-99 ##label WEM
#cross-references GB:M84602; GB:M85264; NID:g163394; PID:g163395
#accession B39296
#molecule_type protein
#residues 50-68,'X',70-74,'X',76 ##label WEM2
#experimental_source seminal vesicle
KEYWORDS #superfamily macrophage inflammatory protein
FEATURE glycoprotein
1-23
24-99 #domain signal sequence #status predicted #label SIG\
#product monocyte chemoattractant protein 1 #status predicted #label MAT\
94 #binding_site carbohydrate (Asn) (covalent) #status predicted

SUMMARY #length 99 #molecular-weight 11114 #checksum 9401

Query Match 82.2%; Score 83; DB 2; Length 99;
Best Local Similarity 73.0%; Pred. No. 4.05e-05;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 73 ELCADPKKRWQ 84
1:|||||1:1
QY 1 EICLDPKQKMIQ 12

RESULT 12
ENTRY JC2336 #type complete
TITLE monocyte chemoattractant protein-1 - bovine
ORGANISM #formal_name Bos primigenius indicus #common_name zebu cattle
DATE 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 03-May-1996
ACCESSIONS JC2336
REFERENCE JC2336
#authors Wempe, F.; Kuhlmann, J.K.; Scheit, K.H.
#journal Biochem. Biophys. Res. Commun. (1994) 202:1272-1279
#title Characterization of the bovine monocyte chemoattractant protein-1 gene.
#accession JC2336
#molecule_type protein
#residues 1-99 ##label WEM

GENETICS
#gene MCP-1
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 99 #molecular-weight 11114 #checksum 9401

Query Match 82.2%; Score 83; DB 2; Length 99;
Best Local Similarity 75.0%; Pred. No. 4.05e-05;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 73 ELCADPKKRWQ 84
1:|||||1:1
QY 1 EICLDPKQKMIQ 12

RESULT 13
ENTRY I46857 #type complete
TITLE monocyte chemoattractant protein-1 - rabbit

ORGANISM #formal_name Oryctolagus cuniculus #common_name domestic rabbit
DATE 14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change 09-May-1997
ACCESSIONS 146857
REFERENCE 146857
#authors Yoshimura, T.; Yuhki, N.
#journal J. Immunol. (1991) 146:3483-3488
#title Neutrophil attractant/activation protein-1 and monocyte chemoattractant protein-1 in rabbit: cDNA cloning and their expression in spleen cells.
#cross-references M01D:91225489
#accession 146857
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-125 #label YOS
#cross-references GB:M57440; NID:9165469; PID:9165470
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 125 #molecular-weight 13776 #checksum 4498

Query Match 81.2%; Score 82; DB 2; Length 125;
Best Local Similarity 81.8%; Pred. No. 6.56e-05;
Matches 9; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 74 ICADPCKQKWQ 84
||| ||||| :|
Q7 2 ICIDPCKQKWIQ 12

RESULT 14
ENTRY A54678 #type complete
TITLE monocyte chemotactic protein 3 precursor - human
ALTERATE_NAMES monocyte chemoattractant protein MCP-3
ORGANISM #formal_name Homo sapiens #common_name man
DATE 28-Oct-1994 #sequence_revision 28-Oct-1994 #text_change 24-Sep-1998
ACCESSIONS A54678; JCI1478; S32222
REFERENCE A54678
#authors Opdenakker, G.; Fiten, P.; Nys, G.; Froyen, G.; Van Roy, N.; Speleman, F.; Laureys, G.; Van Damme, J.
#journal Genomics (1994) 21:403-408
#title The human MCP-3 gene (SCYA7): cloning, sequence analysis, and assignment to the C-C chemokine gene cluster on chromosome 17q11.2-q12.
#accession A54678
#molecule_type DNA
#residues 1-109 #label OPD
#cross-references GB:X72309
REFERENCE JCI1478
#authors Opdenakker, G.; Froyen, G.; Fiten, P.; Proost, P.; Van Damme, J.
#journal Biochem. Biophys. Res. Commun. (1993) 191:535-542
#title Human monocyte chemotactic protein-3 (MCP-3): Molecular cloning of the cDNA and comparison with other chemokines.
#accession JCI1478
#molecule_type mRNA
#residues 1-109 #label OP2
REFERENCE S32222
#authors Minty, A.; Chalton, P.; Guillemot, J.C.; Kaghad, M.; Lhazun, P.; Magazin, M.; Miloux, B.; Mery, C.; Ramond, P.; Viala, N.; Lubker, J.; Shire, D.; Ferrara, P.; Caput, D.
#submission submitted to the EMBL Data Library, March 1993
#description Molecular cloning of MCP-3: a human monocyte-derived monocyte chemoattractant protein.
#accession S32222
#molecule_type mRNA
#residues 1-109 #label MIN
#cross-references EMBL:X71087; NID:9288396; PID:9288397
COMMENT This protein induces proteinase secretion and chemotaxis by macrophages and monocytes.
GENETICS GDB:SCYA7; SCYA6; MCP-3
#gene
#cross-references GDB:138473; OMIM:158106

#map_position 17q11-17q12
#initons 36/1; 75/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS cytokine; glycoprotein; inflammation
FEATURE 1-33
34-109
39 #domain signal sequence #status predicted #label SIG\
#product monocyte chemotactic protein 3 #status predicted #label M3P\
#binding_site carbohydrate (Asn) (covalent) #status predicted
SUMMARY #length 109 #molecular-weight 12356 #checksum 1535

Query Match 80.2%; Score 81; DB 2; Length 109;
Best Local Similarity 75.0%; Pred. No. 1.06e-04;
Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 83 EICADPCKQKWQ 94
||| ||||| :|
Q7 1 EICIDPCKQKWIQ 12

RESULT 15
ENTRY A53497 #type complete
TITLE pre-B-cell growth-stimulating factor precursor - mouse
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 02-Jun-1994 #sequence_revision 02-Jun-1994 #text_change 10-Sep-1997
ACCESSIONS A53497; I59582
REFERENCE A53497
#authors Nagasawa, T.; Kikuchi, H.; Kishimoto, T.
#journal Proc. Natl. Acad. Sci. U.S.A. (1994) 91:2305-2309
#title Molecular cloning and structure of a pre-B-cell growth-stimulating factor.
#accession A53497
#status preliminary
#molecule_type mRNA
#residues 1-89 #label NAG
#cross-references GB:D21072; NID:9413905; PID:d1005177; PID:9468457
REFERENCE I59582
#authors Tashiro, K.; Tada, H.; Helliker, R.; Shirozu, M.; Nakano, T.; Honjo, T.
#journal Science (1993) 261:600-603
#title Signal sequence trap: a cloning strategy for secreted proteins and type I membrane proteins.
#cross-references M01D:93342488
#accession I59582
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-89 #label RES
#cross-references GB:L12029; NID:9393179; PID:9393180
GENETICS SDF-1-alpha
#gene cytokine
KEYWORDS
SUMMARY #length 89 #molecular-weight 10032 #checksum 4622

Query Match 79.2%; Score 80; DB 2; Length 89;
Best Local Similarity 66.7%; Pred. No. 1.71e-04;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 69 QVICDPCKQKWQ 80
::: ||||| :|
Q7 1 EICIDPCKQKWIQ 12

RESULT 16
ENTRY I53416 #type complete
TITLE interleukin-8 homolog - mouse
ORGANISM #formal_name Mus sp. #common_name mouse
DATE 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change 28-Feb-1997
ACCESSIONS I53416
REFERENCE I53416
#authors Jiang, W.; Zhou, P.; Kahn, S.M.; Tomita, N.; Johnson, M.D.;

#journal Exp. Cell Res. (1994) 215:284-293
#title Molecular cloning of TPARI, a gene whose expression is
#cross-references MUID:95073497
#accession 153416
##status preliminary; translated from GB/EMBL/DBJ
##molecule-type mRNA
##residues 1-89 ##label RES
##cross-references GB:S74318; NID:g786393; PID:g786394

GENETICS
#gene TPARI
SUMMARY #length 89 #molecular-weight 10032 #checksum 4622

Query Match 79.2%; Score 80; DB 2; Length 89;
Best Local Similarity 66.7%; Pred. No. 1.71e-04;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 69 QVCIDPKLKWQ 80
:::|||||
QY 1 EICLDPKQKWQ 12

RESULT 17
ENTRY G01540 #type complete
TITLE cytokine SDF-1-beta - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 21-Dec-1996 #sequence_revision 06-Jun-1997 #text_change 17-Jul-1998

ACCESSIONS
G01540
G07697
#authors Spottila, L.D.
#submission submitted to the EMBL Data Library, October 1994
#accession G01540
##status preliminary; translated from GB/EMBL/DBJ
##molecule-type mRNA
##residues 1-93 ##label SPO
##cross-references EMBL:U16752; NID:g1272194; PID:g571508

SUMMARY #length 93 #molecular-weight 10666 #checksum 6309

Query Match 79.2%; Score 80; DB 2; Length 93;
Best Local Similarity 66.7%; Pred. No. 1.71e-04;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 69 QVCIDPKLKWQ 80
:::|||||
QY 1 EICLDPKQKWQ 12

RESULT 18
ENTRY I81182 #type complete
TITLE cytokine - mouse
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change 28-Feb-1997

ACCESSIONS
I81182
I59582
#authors Tashiro, K.; Tada, H.; Heikler, R.; Shirozu, M.; Nakano, T.;
Honjo, T.
#journal Science (1993) 261:600-603
#title Signal sequence trap: a cloning strategy for secreted
#cross-references MUID:93342488
#accession I81182
##status preliminary; translated from GB/EMBL/DBJ
##molecule-type mRNA
##residues 1-93 ##label RES
##cross-references GB:U12030; NID:g393181; PID:g393182

GENETICS
#gene SDF-1-beta
SUMMARY #length 93 #molecular-weight 10561 #checksum 5309

Query Match 79.2%; Score 80; DB 2; Length 93;
Best Local Similarity 66.7%; Pred. No. 1.71e-04;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 69 QVCIDPKLKWQ 80
:::|||||
QY 1 EICLDPKQKWQ 12

RESULT 19
ENTRY JC2417 #type complete
TITLE monocytic chemottractant protein-2 - pig
ORGANISM #formal_name Sus scrofa domestica #common_name domestic pig
DATE 24-Feb-1995 #sequence_revision 24-Feb-1995 #text_change 03-May-1996

ACCESSIONS
JC2417
JC2417
#authors Hosang, K.; Knoke, I.; Klaudiny, J.; Wempe, F.; Wuttke, W.;
Schelt, K.H.
#journal Biochem. Biophys. Res. Commun. (1994) 205:148-153
#title Porcine luteal cells express monocytic chemottractant
#cross-references MUID:93267104
#accession JC2417
##status preliminary; translated from GB/EMBL/DBJ
##molecule-type mRNA
##residues 1-99 ##label HOS
##cross-references GB:U04985; NID:g349820; PID:g349821

GENETICS
#gene MCP-1
SUMMARY #length 120 #molecular-weight 13741 #checksum 9252

Query Match 78.2%; Score 79; DB 2; Length 120;
Best Local Similarity 66.7%; Pred. No. 2.76e-04;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 71 EVCADPTQKWQ 82
:::|||||
QY 1 EICLDPKQKWQ 12

RESULT 20
ENTRY I48147 #type complete
TITLE monocytic chemottractant protein-1 - guinea pig
ORGANISM #formal_name Cavia porcellus #common_name guinea pig
DATE 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 09-May-1997

ACCESSIONS
I48147
I48147
#authors Yoshimura, T.
#journal J. Immunol. (1993) 150:5025-5032
#title CDNA cloning of guinea pig monocytic chemottractant protein-1
#cross-references MUID:93267104
#accession I48147
##status preliminary; translated from GB/EMBL/DBJ
##molecule-type mRNA
##residues 1-120 ##label RES
##cross-references GB:U04985; NID:g349820; PID:g349821

GENETICS
#gene MCP-1
SUMMARY #length 120 #molecular-weight 13741 #checksum 9252

Query Match 78.2%; Score 79; DB 2; Length 120;
Best Local Similarity 66.7%; Pred. No. 2.76e-04;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 71 EVCADPTQKWQ 82
:::|||||
QY 1 EICLDPKQKWQ 12

RESULT 21
ENTRY JC4912 #type complete
TITLE eotaxin - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 01-Nov-1996 #sequence_revision 01-Nov-1996 #text_change 08-Sep-1997

ACCESSIONS
REFERENCE JC4912
#authors Bartels, J.; Schluter, C.; Richter, E.; Noso, N.; Kulke, R.;
#journal Christophers, E.; Schroeder, J.M.
#title Biochem. Biophys. Res. Commun. (1996) 225:1045-1051
Human dermal fibroblasts express eotaxin: Molecular cloning,
mRNA expression, and identification of eotaxin sequence
variants.
#accession JC4912
#molecule_type Preliminary
#status Preliminary
#residues 1-97 #label BAR
#cross-references EMBL:Z75668; NID:G1531982; PID:e251275; PID:G1531983
#experimental_source dermal fibroblast
COMMENT This protein has eosinophil specific chemotactic activity.
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS fibroblast

FEATURE
1-18 #domain signal sequence #status predicted #label SIG\
19-97 #product eotaxin #status predicted #label MAT
SUMMARY #length 97 #molecular_weight 10790 #checksum 448

Query Match 76.2%; Score 77; DB 2; Length 97;
Best Local Similarity 58.3%; Pred. No. 7.10e-04;
Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 71 ICADPKKKWQ 82
:||| ||| :|:|
QY 1 EICLDPKKWKIQ 12

RESULT 22
ENTRY 148099 #type complete
TITLE eotaxin precursor - guinea pig
ORGANISM #formal_name Cavia porcellus #common_name guinea pig
DATE 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 09-May-1997

ACCESSIONS
REFERENCE 148099
#authors Rothenberg, M.E.; Luster, A.D.; Lilly, C.M.; Drazen, J.M.;
#journal Leder, P.
#title J. Exp. Med. (1995) 181:1211-1216
Constitutive and allergen-induced expression of eotaxin mRNA
in the guinea pig lung.
#cross-references MUID:95173589
#accession 148099
#status Preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-96 #label RES
#cross-references EMBL:U18941; NID:G687655; PID:G687656
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 96 #molecular_weight 10753 #checksum 7236

Query Match 74.3%; Score 75; DB 2; Length 96;
Best Local Similarity 72.7%; Pred. No. 1.81e-03;
Matches 8; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 71 ICADPKKKWQ 81
:||| ||| :|:|
QY 2 ICLDPKKWKIQ 12

RESULT 23
ENTRY JC2478 #type complete
TITLE eotaxin - rat

ORGANISM
DATE #formal_name Rattus norvegicus #common_name Norway rat
21-Feb-1995 #sequence_revision 05-Apr-1995 #text_change 08-Sep-1997

ACCESSIONS
REFERENCE JC2478
#authors Jose, P.J.; Adcock, I.M.; Griffiths-Johnson, D.A.; Berkman,
#journal N.; Wells, T.N.C.; Williams, T.J.; Power, C.A.
#title Biochem. Biophys. Res. Commun. (1994) 203:788-794
Eotaxin: Cloning of an eosinophil chemottractant cytokine
and increased mRNA expression in allergen-challenged
guinea-pig lungs.
#accession JC2478
#molecule_type mRNA
#status 1-96 #label JOS
#residues 1-96
#cross-references EMBL:X77603; NID:G602551; PID:G602552
COMMENT This protein is identified as a potent eosinophil chemoattractant.
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS glycoprotein

FEATURE
1-23 #domain signal sequence #status predicted #label SIG\
24-96 #product eotaxin #status predicted #label MAT\
93 #binding_site carbohydrate (Thr) (covalent) #status predicted

SUMMARY #length 96 #molecular_weight 10695 #checksum 7329

Query Match 74.3%; Score 75; DB 2; Length 96;
Best Local Similarity 72.7%; Pred. No. 1.81e-03;
Matches 8; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 71 ICADPKKKWQ 81
:||| ||| :|:|
QY 2 ICLDPKKWKIQ 12

RESULT 24
ENTRY 152322 #type complete
TITLE macrophage inflammatory protein-1alpha - rat
ORGANISM #formal_name Rattus norvegicus #common_name Norway rat
DATE 29-May-1998 #sequence_revision 29-May-1998 #text_change 02-Jul-1998

ACCESSIONS
REFERENCE 152322
#authors Shi, M.M.; Godleski, J.J.; Paulauskis, J.D.
#journal Biochem. Biophys. Res. Commun. (1995) 211:289-295
#title Molecular cloning and posttranscriptional regulation of
macrophage inflammatory protein-1 alpha in alveolar
macrophages.
#cross-references MUID:95298037
#accession 152322
#status Preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues 1-92 #label RES
#cross-references EMBL:U22414; NID:G790632; PID:G790633
CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 92 #molecular_weight 10335 #checksum 3184

Query Match 73.3%; Score 74; DB 2; Length 92;
Best Local Similarity 58.3%; Pred. No. 2.88e-03;
Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 71 QICADPKKRWQ 82
:||| ||| :|:|
QY 1 EICLDPKKWKIQ 12

RESULT 25
ENTRY JC5295 #type complete
TITLE monocyte chemotactic protein-2 - human
ORGANISM #formal_name Homo sapiens #common_name man
DATE 02-May-1997 #sequence_revision 18-Jul-1997 #text_change 31-Oct-1997

ACCESSIONS
REFERENCE JC5295

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#authors      Van Collie, E.; Froyen, G.; Nomiyama, H.; Miura, R.; Fiten,
#journal      P.; J. Van Aelst, I.; Van Damme, J.; Opdenakker, G.
#title        Biochem. Biophys. Res. Commun. (1997) 231:726-730
#accession    Human monocyte chemotactic protein-2: cDNA cloning and
              regulated expression of mRNA in mesenchymal cells.
              JCS295
#molecule_type mRNA
#residues     1-99 #label VAN
#cross-references GB:Y10802; NID:G1924937; PID:e294088; PID:g1924938
COMMENT       #experimental_source bone marrow
              This protein belongs to the beta-chemokine family which is one of
              the major HIV-suppressive factors. It plays roles in autoimmune
              processes such as multiple sclerosis and rheumatoid arthritis and
              in tumor biology, and contribute to the trafficking and
              recruitment of the responsive cells.

GENETICS
#gene         MCP-2
CLASSIFICATION #superfamily macrophage inflammatory protein
FEATURE
1-23          #domain signal sequence #status predicted #label SIG
24-99         #product monocyte chemotactic protein-2 #status
              predicted #label MAT
SUMMARY        #length 99 #molecular_weight 11246 #checksum 6596

Query Match   72.3%; Score 73; DB 2; Length 99;
Best Local Similarity 50.0%; Pred. NO. 4,56e-03;
Matches       6; Conservative 5; Mismatches 1; Indels 0; Gaps 0;

Db            73 EYCLDPKRWVR 84
              1-1111111111
Oy            1 EICLDPKRWIQ 12

RESULT 26
ENTRY      150417 #type complete
TITLE      RSV-induced protein - chicken
ORGANISM   Gallus gallus #common_name chicken
DATE       13-Sep-1996 #sequence_revision 13-Sep-1996 #text_change
              16-Feb-1997
ACCESSIONS 150417
REFERENCE   150417
#authors    Bedard, P.
#journal     Proc. Natl. Acad. Sci. U.S.A. (1987) 84:6715-6719
#title       Constitutive expression of a gene encoding a polypeptide
              homologous to biologically active human platelet protein in
              Rous sarcoma virus-transformed fibroblasts virus
              transformed fibroblasts.
#cross-references MUID:88016162
#accession   150417
#status      preliminary; translated from GB/EMBL/DBJ
#molecule_type mRNA
#residues     1-103 #label BED
#cross-references GB:J02975; NID:g212643; PID:g212644
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY        #length 103 #molecular_weight 11090 #checksum 8267

Query Match   71.3%; Score 72; DB 2; Length 103;
Best Local Similarity 58.3%; Pred. NO. 7.21e-03;
Matches       7; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

Db            74 EYCLDPAPWQ 85
              1-1111111111
Oy            1 EICLDPKRWIQ 12

RESULT 27
ENTRY      A26736 #type complete
TITLE      transformation-induced protein precursor (clone 9e3) -
              chicken
ORGANISM   Gallus gallus #common_name chicken
DATE       19-Nov-1988 #sequence_revision 19-Nov-1988 #text_change
              20-Mar-1998
ACCESSIONS  A26736

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REFERENCE      A26736
#authors      Sugano, S.; Stoeckle, M.Y.; Hanafusa, H.
#journal      Cell (1987) 49:321-328
#title        Transformation by Rous sarcoma virus induces a novel gene
               with homology to a mitogenic platelet protein.
#cross-references MUID:87187628
#accession    A26736
               ##molecule_type mRNA
               ##residues 1-103 ##label SUG
CLASSIFICATION #cross-references GB:M16199; NID:g211735; PID:g211736
KEYWORDS       #superfamily beta-thromboglobulin
FEATURE        growth factor
1-17           #domain signal sequence #status predicted #label sig\
18-103         #product transformation-induced protein #status
               predicted #label MAT
SUMMARY        #length 103 #molecular-weight 11056 #checksum 8297

DB      74 EYCDPTAPWQ 85
       1-1111 1-1
QY      1 EICIDPKQKWIO 12

RESULT      28
ENTRY       A30209 #type complete
TITLE       PDGF-inducible tyre glycoprotein precursor - mouse
ORGANISM    formal_name Mus musculus #common_name house mouse
DATE        01-Dec-1989 #sequence_revision 01-Dec-1989 #text_change
            01-May-1998
ACCESSIONS  A30209; A44771; A30861
REFERENCE    A30209
#authors     Rollins, B.J.; Morrisson, E.D.; Stiles, C.D.
#journal     Proc. Natl. Acad. Sci. U.S.A. (1988) 85:3738-3742
#title       Cloning and expression of JE, a gene inducible by
               platelet-derived growth factor and whose product has
               cytokine-like properties.
#cross-references MUID:88234501
#accession   A30209
               ##molecule_type DNA
               ##residues 1-148 ##label ROL
REFERENCE    #cross-references GB:M19681; NID:g193486; PID:g387168; GB:M19682
#authors     Kawahara, R.S.; Deuel, T.F.
#journal     J. Biol. Chem. (1989) 264:679-682
#title       Platelet-derived growth factor-inducible gene JE is a member
               of a family of small inducible genes related to platelet
               factor 4.
#accession   A44771
               ##molecule_type DNA; mRNA
               ##residues 1-148 ##label KA2
               ##cross-references GB:J04467; NID:g193488; PID:g387169
GENETICS     #gene
               #introns 26/1; 65/2
               #superfamily macrophage inflammatory protein
               #keywords cytokine; glycoprotein
FEATURE       126
               #binding site carbohydrate (Asn) (covalent) #status
               predicted
SUMMARY      #length 148 #molecular-weight 16326 #checksum 5278

Query Match 70.3%; Score 71; DB 2; Length 148;
Best Local Similarity 58.3%; Pred. No. 1,14e-02;
Matches 7; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

DB      73 EYCADPKKEWQ 84
       1-1 111 1-1
QY      1 EICIDPKQKWIO 12

```

RESULT 29
ENTRY A32393 #type complete
TITLE macrophage inflammatory protein-1-alpha precursor - mouse
ALTERNATE_NAMES heparin-binding chemotaxis protein; ILG25b protein;
SCI/MIP-1a; SIS alpha; stem cell inhibitor/macrophage
inflammatory protein 1-alpha; T-cell activation protein
alpha; IT5
ORGANISM #formal_name Mus musculus #common_name house mouse
DATE 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change
08-Sep-1997
ACCESSIONS S11685; A32393; S04533; A53885; A30552; PS0303; A27596;
I56104
REFERENCE
#authors S11685
#journal Grove, M.; Lowe, S.; Graham, G.; Pragnell, I.; Plumb, M.
#title Nucleic Acids Res. (1990) 18:5561
Sequence of the murine haemopoietic stem cell
inhibitor/macrophage inflammatory protein 1-alpha gene.
#cross-references MUID:91016858
#accession S11685
#molecule_type DNA
#residues 1-92 ##label GRO
#cross-references EMBL:X53372; NID:954062; PID:9297531
##note the authors' translation of the nucleotide sequence
differs at several positions from the sequence given
REFERENCE
#authors A32393
#journal Kwon, B.S.; Weissman, S.M.
#title Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1963-1967
CDNA sequence of two inducible T-cell genes.
#cross-references MUID:89184547
#accession A32393
#molecule_type mRNA
#residues 1-92 ##label KMO
#cross-references GB:J04491; NID:9201524; PID:9201525
REFERENCE
#authors S04533
#journal Davatelis, G.; Tekamp-Olson, P.; Wolpe, S.D.; Hermesen, K.;
#title Luedke, C.; Gallegos, C.; Colt, D.; Merryweather, J.;
Cerami, A.
J. Exp. Med. (1988) 167:1939-1944
Cloning and characterization of a cDNA for murine macrophage
inflammatory protein (MIP), a novel monokine with
inflammatory and chemokinetic properties.
#cross-references MUID:88258380
#accession S04533
#molecule_type mRNA
#residues 1-48,'E',50-90,'I',92 ##label DA2
#cross-references EMBL:X12531
##note the authors translated the codon GAG for residue 49 as
Asp and ATT for residue 91 as Asn
the sequence has been corrected in reference A53885
REFERENCE
#authors A53885
#journal Davatelis, G.; Tekamp-Olson, P.; Wolpe, S.D.; Hermesen, K.;
#title Luedke, C.; Gallegos, C.; Colt, D.; Merryweather, J.;
Cerami, A.
J. Exp. Med. (1989) 170:2189
#journal J. Exp. Med. (1989) 170:2189
#contents erratum
#accession A53885
#molecule_type mRNA
#residues 1-92 ##label DAV
#cross-references EMBL:X12531; NID:953122; PID:953123
REFERENCE
#authors A30552
#journal Brown, K.D.; Zurawski, S.M.; Kosmann, T.R.; Zurawski, G.
#title J. Immunol. (1989) 142:679-687
A family of small inducible proteins secreted by leukocytes
are members of a new superfamily that includes leukocyte
and fibroblast-derived inflammatory agents, growth factors,
and indicators of various activation processes.
#cross-references MUID:89093938
#accession A30552
#molecule_type mRNA
#residues 1-21,'L',23-61,'A',63-92 ##label BRO
#cross-references GB:M23447; NID:9533240; PID:9533241
REFERENCE
JL0088

#authors Sherry, B.; Tekamp-Olson, P.; Gallegos, C.; Bauer, D.;
Davatelis, G.; Wolpe, S.D.; Mastiarz, F.; Colt, D.; Cerami,
A.
#journal J. Exp. Med. (1988) 168:2251-2259
#title Resolution of the two components of macrophage inflammatory
protein 1, and cloning and characterization of one of those
components, macrophage inflammatory protein 1 beta.
#cross-references MUID:89067830
#accession PS0303
#molecule_type mRNA
#residues 24-33,'XX',36-54 ##label SHE
REFERENCE
#authors A27596
#journal Wolpe, S.D.; Davatelis, G.; Sherry, B.; Beutler, B.; Hesse,
D.G.; Nguyen, H.T.; Moldawer, L.L.; Nathan, C.F.; Lowry,
S.F.; Cerami, A.
#title J. Exp. Med. (1988) 167:570-581
Macrophages secrete a novel heparin-binding protein with
inflammatory and neutrophil chemokinetic properties.
#cross-references MUID:88154745
#accession A27596
#molecule_type protein
#residues 24-33,'XX',36-42 ##label WOL
##note 26-Met, 30-Pro, and 39-Thr were also found
REFERENCE
#authors I56104
#journal Widmer, U.; Yang, Z.; van Deventer, S.; Manogue, K.R.;
#title Sherry, B.; Cerami, A.
J. Immunol. (1991) 146:4031-4040
Genomic structure of murine macrophage inflammatory
protein-1-alpha and conservation of potential regulatory
sequences with a human homolog, Lf8.
#cross-references MUID:91237116
#accession I56104
#status preliminary; translated from GB/EMBL/DBJ
#molecule_type DNA
#residues 1-92 ##label RES
#cross-references GB:M73061; NID:919694; PID:919695
COMMENT This protein is a monokine.
GENETICS 23/3: 26/1; 63/2
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS heparin binding
FEATURE 1-23 #domain signal sequence #status predicted #label SIG\N
24-92 #product macrophage inflammatory protein #status
experimental #label MAT
SUMMARY #length 92 #molecular-weight 10345 #checksum 5009
Query Match 66.3%; Score 67; DB 2; Length 92;
Best Local Similarity 50.0%; Pred. No. 6.80e-02;
Matches 6; Conservative 4; Mismatches 2; Gaps 0;
Indels 0;
DB 71 QICADSKRETYWQ 82
QY 1 EICDDPKQKQWQ 12
RESULT 30
ENTRY S07723 #type complete
TITLE immediate-early serum-responsive protein JE - rat
ALTERNATE_NAMES monocytic chemoattractant protein-1
ORGANISM #formal_name Rattus norvegicus #common_name Norway rat
DATE 29-Jan-1993 #sequence_revision 29-Jan-1993 #text_change
08-Sep-1997
ACCESSIONS S07723; JN0128
REFERENCE
#authors S07723
#journal Timmers, H.T.M.; Pronk, G.J.; Bos, J.L.; van der ED, A.J.
#title Nucleic Acids Res. (1990) 18:23-34
Analysis of the rat JE gene promoter identifies an AP-1
binding site essential for basal expression but not for TPA
induction.
#cross-references MUID:90174947
#accession S07723
#molecule_type DNA

```
##residues 1-148 ##label TIM
##cross-references EMBL:X17053; NID:955530; PID:955531
REFERENCE JN0128
#authors Yoshimura, T.; Takeya, M.; Takahashi, K.
#journal Biochem. Biophys. Res. Commun. (1991) 174:504-509
#title Molecular cloning of rat monocyte chemoattractant protein-1
(MCP-1) and its expression in rat spleen cells and tumor
cell lines.
#cross-references MUID:91128376
#accession JN0128
##molecule_type mRNA
##residues 1-148 ##label YOS
##cross-references GB:M57441; NID:9205333; PID:9205334
##experimental_source spleen cells
##note the authors translated the codon GAA for residue 62 as
Lys and GCT for residue 63 as Leu

GENETICS
#introns 26/1: 65/2
CLASSIFICATION #superfamily macrophage inflammatory protein
FEATURE
1-23 #domain signal sequence #status predicted #label SIG\
24-148 #product immediate-early serum-responsive protein JE
#status predicted #label MAT
SUMMARY #length 148 #molecular-weight 16460 #checksum 4876

Query Match 66.3%; Score 67; DB 2; Length 148;
Best local Similarity 58.3%; Pred. No. 6.80e-02;
Matches 7; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

Db 73 EICADPNKEWVQ 84
QY 1 EICLDPKQKWIQ 12

Search completed: Thu Apr 1 07:45:44 1999
Job time : 17 secs.
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[W][O][R][L][D]

(TM)

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Msrch_pp protein - protein database search, using Smith-Waterman algorithm
Run on: Thu Apr 1 07:44:14 1999; MasPar time 2.31 Seconds
Tabular output not generated. 139.571 Million cell updates/sec

Title: >US-08-927-939-14
Description: (1-12) from US08927939.pep
Perfect Score: 101
Sequence: 1 EICLDPRQKWIQ 12

Scoring table:
PAM 150
Gap 15

Searched: 74019 segs, 26840295 residues

Post-processing: Minimum Match 0%
Listing first 100 summaries

Database: swiss-prot36
1:swissprot

Statistics: Mean 26.176; Variance 33.721; scale 0.776

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result	No.	Score	Query Match	Length	ID	Description	Pred. No.
1	93	92.1	101	1	IL8_SHEEP	INTERLEUKIN-8 PRECURSO	1.14e-08
2	93	92.1	101	1	IL8_CANFA	INTERLEUKIN-8 PRECURSO	1.14e-08
3	93	92.1	103	1	IL8_PIG	INTERLEUKIN-8 PRECURSO	1.14e-08
4	90	89.1	101	1	IL8_BOVIN	INTERLEUKIN-8 PRECURSO	6.27e-08
5	90	89.1	101	1	IL8_RABIT	INTERLEUKIN-8 PRECURSO	6.27e-08
6	88	87.1	99	1	MCPI_HUMAN	MONOCYTE CHEMOTACTIC P	1.93e-07
7	88	87.1	101	1	MCPI_CANFA	MONOCYTE CHEMOTACTIC P	1.93e-07
8	87	86.1	99	1	MCPI_PIG	MONOCYTE CHEMOTACTIC P	1.93e-07
9	85	84.2	99	1	MCPI_BOVIN	MONOCYTE CHEMOTACTIC P	1.03e-06
10	84	83.2	98	1	MCPI_HUMAN	MONOCYTE CHEMOTACTIC P	1.79e-06
11	84	83.2	99	1	IL8_HUMAN	INTERLEUKIN-8 PRECURSO	1.79e-06
12	84	83.2	101	1	IL8_CANFA	INTERLEUKIN-8 PRECURSO	1.79e-06
13	83	82.2	99	1	MCPI_BOVIN	MONOCYTE CHEMOTACTIC P	3.39e-07
14	82	81.2	125	1	MCPI_RABIT	MONOCYTE CHEMOTACTIC P	5.35e-06
15	81	80.2	97	1	EOTA_MOUSE	EOTAXIN PRECURSOR (EOS	9.23e-06
16	81	80.2	97	1	EOTA_RAT	EOTAXIN PRECURSOR (EOS	9.23e-06
17	81	80.2	99	1	MCPI_HUMAN	MONOCYTE CHEMOTACTIC P	9.23e-06
18	80	79.2	93	1	SDFI_MOUSE	STROMAL CELL-DERIVED F	1.59e-05
19	80	79.2	93	1	SDFI_HUMAN	STROMAL CELL-DERIVED F	1.59e-05
20	80	79.2	97	1	EOTA_HUMAN	EOTAXIN PRECURSOR (EOS	1.59e-05
21	80	79.2	101	1	IL8_CERTO	INTERLEUKIN-8 PRECURSO	1.59e-05
22	80	79.2	101	1	IL8_MACMU	INTERLEUKIN-8 PRECURSO	1.59e-05
23	79	78.2	99	1	MCPI_PIG	MONOCYTE CHEMOTACTIC P	2.72e-05

24	79	78.2	120	1	MCPI_CANVO	MONOCYTE CHEMOTACTIC P	2.72e-05
25	77	76.2	104	1	MCPI_MOUSE	MONOCYTE CHEMOTACTIC P	7.91e-05
26	75	74.3	96	1	EOTA_CANVO	EOTAXIN PRECURSOR (EOS	2.27e-04
27	74	73.3	92	1	MILA_RAT	MACROPHAGE INFLAMMATOR	3.84e-04
28	73	72.3	74	1	MCPI_BOVIN	MONOCYTE CHEMOTACTIC P	6.45e-04
29	73	72.3	99	1	MCPI_HUMAN	MONOCYTE CHEMOTACTIC P	6.45e-04
30	72	71.3	89	1	MIP4_HUMAN	MACROPHAGE INFLAMMATOR	1.08e-03
31	72	71.3	103	1	EMFI_CHICK	EMBRYO FIBROBLAST PROT	1.08e-03
32	71	70.3	148	1	MCPI_MOUSE	MONOCYTE CHEMOTACTIC P	1.81e-03
33	67	66.3	92	1	MILA_MOUSE	MACROPHAGE INFLAMMATOR	1.35e-02
34	67	66.3	148	1	MCPI_RAT	MONOCYTE CHEMOTACTIC P	2.22e-02
35	66	65.3	97	1	MCPI_MOUSE	MONOCYTE CHEMOTACTIC P	3.62e-02
36	65	64.4	91	1	SISD_MOUSE	T-CELL SPECIFIC RANTES	3.62e-02
37	65	64.4	92	1	SISD_RAT	T-CELL SPECIFIC RANTES	9.53e-02
38	63	62.4	92	1	MILA_HUMAN	MACROPHAGE INFLAMMATOR	9.53e-02
39	63	62.4	92	1	MILB_HUMAN	MACROPHAGE INFLAMMATOR	9.53e-02
40	63	62.4	93	1	CCCL_HUMAN	CHEMOKINE CC-1 PRECURS	9.53e-02
41	63	62.4	93	1	MIL0_HUMAN	TONSILLAR LYMPHOCYTE L	9.53e-02
42	63	62.4	96	1	MIL3_HUMAN	MACROPHAGE INFLAMMATOR	9.53e-02
43	63	62.4	109	1	CCC3_HUMAN	CHEMOKINE CC-3 PRECURS	9.93e-01
44	60	59.4	90	1	MILB_CHICK	MACROPHAGE INFLAMMATOR	3.93e-01
45	60	59.4	92	1	MILB_RABIT	MACROPHAGE INFLAMMATOR	3.93e-01
46	60	59.4	114	1	LTN_RAT	LYMPHOTACTIN PRECURSOR	3.93e-01
47	60	59.4	176	1	YGRP_ECOLI	HYPOTHETICAL 20.8 KD P	3.93e-01
48	59	58.4	50	1	SISD_PIG	T-CELL SPECIFIC RANTES	6.24e-01
49	59	58.4	85	1	KOC2_ECOLI	TRANSCRIPTIONAL REPR	6.24e-01
50	59	58.4	91	1	SISD_HUMAN	T-CELL SPECIFIC RANTES	6.24e-01
51	59	58.4	91	1	SISD_CANVO	T-CELL SPECIFIC RANTES	6.24e-01
52	59	58.4	114	1	LTN_MOUSE	LYMPHOTACTIN PRECURSOR	6.24e-01
53	59	58.4	201	1	RETB_RAT	PLASMA RETINOL-BINDING	6.24e-01
54	58	57.4	770	1	STAJ_MOUSE	SIGNAL TRANSDUCER AND	9.85e-01
55	58	57.4	770	1	STAJ_HUMAN	SIGNAL TRANSDUCER AND	9.85e-01
56	58	57.4	770	1	STAJ_RAT	SIGNAL TRANSDUCER AND	9.85e-01
57	57	56.4	915	1	PAC6_MOUSE	SERINE PROTEASE PC6 PR	1.55e+00
58	57	56.4	915	1	PAC6_RAT	SERINE PROTEASE PC6 PR	1.55e+00
59	56	55.4	92	1	MILB_RAT	MACROPHAGE INFLAMMATOR	2.42e+00
60	56	55.4	284	1	DRN1_RAT	DEOXYRIBONUCLEASE I PR	2.42e+00
61	56	55.4	2875	1	RPL1_TSW1	RNA-DIRECTED RNA POLY	2.42e+00
62	55	54.5	148	1	YPOL_IPNVJ	HYPOTHETICAL 17.3 KD P	3.76e+00
63	55	54.5	916	1	RTJK_DROFG	RNA-DIRECTED DNA POLY	3.76e+00
64	54	53.5	196	1	YGRP_HAEIN	HYPOTHETICAL PROTEIN H	5.81e+00
65	54	53.5	450	1	DHE4_LACBI	NADP-SPECIFIC GLUTAMAT	5.81e+00
66	54	53.5	606	1	R3PA_MOUSE	RABPHILIN-3A (FRAGMENT	5.81e+00
67	54	53.5	684	1	R3PA_RAT	RABPHILIN-3A (FRAGMENT	5.81e+00
68	54	53.5	694	1	PNKL_NPVAC	PUTATIVE POLYNUCLEOTID	5.81e+00
69	53	52.5	92	1	MILB_MOUSE	MACROPHAGE INFLAMMATOR	8.93e+00
70	53	52.5	117	1	YJRK_YEAST	HYPOTHETICAL 13.2 KD P	8.93e+00
71	53	52.5	117	1	AKC2_PIG	ALVEOLAR MACROPHAGE CH	8.93e+00
72	53	52.5	140	1	VNS1_CANVN	NONSTRUCTURAL PROTEIN	8.93e+00
73	53	52.5	227	1	DRN1_PIG	DEOXYRIBONUCLEASE I (E	8.93e+00
74	53	52.5	262	1	RTCB_ECOLI	RTCB PROTEIN.	8.93e+00
75	53	52.5	408	1	DRN1_SHEEP	DEOXYRIBONUCLEASE I (E	8.93e+00
76	53	52.5	456	1	YDAS_SCHPO	HYPOTHETICAL 50.5 KD P	8.93e+00
77	53	52.5	1827	1	SUTS_HUMAN	SUCRASE-ISOMALTASE, IN	8.93e+00
78	52	51.5	114	1	LTN_HUMAN	LYMPHOTACTIN PRECURSOR	1.36e+01
79	52	51.5	260	1	DRN1_BOVIN	DEOXYRIBONUCLEASE I (E	1.36e+01
80	52	51.5	260	1	DRN1_SHEEP	DEOXYRIBONUCLEASE I (E	1.36e+01
81	52	51.5	357	1	HA15_MOUSE	H-2 CLASS I HISTOCOMPA	1.36e+01
82	52	51.5	460	1	YA54_HAEIN	HYPOTHETICAL PROTEIN H	1.36e+01
83	52	51.5	485	1	IA12_LYCES	1-AMINOACYLOPROPAINE-1	1.36e+01
84	52	51.5	879	1	PC1_MOUSE	HYPOTHETICAL 68.6 KD P	1.36e+01
85	52	51.5	891	1	PC1_HUMAN	PLASMA-CELL MEMBRANE P	1.36e+01
86	52	51.5	873	1	PC1_HUMAN	PLASMA-CELL MEMBRANE P	1.36e+01
87	52	51.5	1128	1	MEM2_RAT	MEMBRANE-ASSOCIATED PR	1.36e+01
88	51	50.5	156	1	UBCO_YEAST	PROBABLE UBQUITIN-CON	2.07e+01
89	51	50.5	335	1	UPAR_HUMAN	UROKINASE PLASMINOGEN	2.07e+01
90	51	50.5	505	1	C762_SOLME	CYCLOCHROME P450 LIXVIA	2.07e+01
91	51	50.5	506	1	VIL1_BPV4	MAJOR CAPSID PROTEIN L	2.07e+01
92	51	50.5	532	1	INV4_YEAST	INVERTASE 4 PRECURSOR	2.07e+01
93	51	50.5	532	1	INV4_YEAST	INVERTASE 2 PRECURSOR	2.07e+01
94	51	50.5	619	1	RECO_HAEIN	ATP-DEPENDENT DNA HELI	2.07e+01
95	51	50.5	650	1	VEL1_HPV73	REPLICATION PROTEIN EI	2.07e+01
96	51	50.5	702	1	ADA3_YEAST	ADA3 PROTEIN (NG1 PRO	2.07e+01

97 51 50.5 1126 1 MEM2_DROME MEMBRANE-ASSOCIATED PR 2.07e+01
 98 51 50.5 1584 1 Y396_YEAST HYPOTHETICAL 182.0 KD 2.07e+01
 99 50 49.5 360 1 HAIA_BOVIN BOLA CLASS I HISTOCOMP 3.12e+01
 100 50 49.5 587 1 FOIC_HUMAN POLY(POLYGLUTAMATE SYN 3.12e+01

ALIGNMENTS

RESULT 1
 ID IL8_SHEEP STANDARD: PRT; 101 AA.
 AC P36925;
 DT 01-JUN-1994 (REL. 29, CREATED)
 DT 01-JUN-1994 (REL. 29, LAST SEQUENCE UPDATE)
 DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
 DE INTERLEUKIN-8 PRECURSOR (IL-8).
 GN IL8.
 OS OVIS ARIES (SHEEP).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 95121931.
 RA LEGASTFLOIS I., GREENLAND T., ARNAUD P., MORENEX J.F., CORDIER G.;
 RL GENE 150:367-369(1994).
 [2]
 [2] SEQUENCE FROM N.A.
 RX MEDLINE; 95137691.
 RA SEOM H.F., YOSHIMURA T., WOOD P.R., COLDITZ I.G.;
 RL IMMUNOL. CELL BIOL. 72:398-405(1994).
 CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
 BASOPHILS, AND T-CELLS. BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
 NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
 RESPONSE TO AN INFLAMMATORY STIMULUS.
 CC -1- SUBUNIT: HOMODIMER.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 C-X-C) (CHEMOKINE CXC).
 DR EMBL; X78306; GA63254; -;
 DR EMBL; S74436; G786591; -;
 DR PIR; S42496; S42496.
 DR HSSP; P10145; 31L8.
 DR PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
 KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 22 BY SIMILARITY.
 FT CHAIN 23 101 INTERLEUKIN-8.
 FT DISULFID 34 61 BY SIMILARITY.
 FT DISULFID 36 77 BY SIMILARITY.
 SQ SEQUENCE 101 AA; 11292 MW; 5A574527 CRC32;
 Query Match 92.1%; Score 93; DB 1; Length 101;
 Best Local Similarity 75.0%; Pred. No. 1.14e-08;
 Matches 9; Conservative 3; Mismatches 0; Indels 0; Gaps 0;
 Db 75 EYCLDPKRWQ 86
 1:|||||:|:|
 QY 1 EICLDPKRWQ 12
 RESULT 2
 ID IL8_CANFA STANDARD: PRT; 101 AA.
 AC P41324;
 DT 01-FEB-1995 (REL. 31, CREATED)
 DT 01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
 DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
 DE INTERLEUKIN-8 PRECURSOR (IL-8).
 GN IL8.
 OS CANIS FAMILIARIS (DOG).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; CARNIVORA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 94010328.
 RA ISHIKAWA J., SUZUKI S., HOTTA K., HIROTA Y., MIZUNO S., SUZUKI K.;
 RL GENE 131:305-306(1993).

RN [2]
 RP SEQUENCE FROM N.A.
 RX TISSUE-LYMPH NODE;
 RC MEDLINE; 95127913.
 RA MATSUMOTO Y., MOHAMED A., ONODERA T., KATO H., OHASHI T.,
 RA ISHIKAWA J., HOTTA K., SUZUKI K., HIROTA Y.;
 RL CYTOKINE 6:455-461(1994).
 [3]
 RP SEQUENCE FROM N.A.
 RC STRAIN-MONGREL; TISSUE-JUGULAR VEIN;
 RX MEDLINE; 95114148.
 RA KUTIELKA G.L., SMITH W.C., LAPOSA G.J., MANNING A.M.,
 RA MENDOZA L.H., DALY T.J., HUGHES B.J., YOKER K.A., HAWKINS H.K.,
 RA MICHAEL L.H., ROT A., ENTMAN M.L.;
 RL J. CLIN. INVEST. 95:89-103(1994).
 CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
 BASOPHILS, AND T-CELLS. BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
 NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
 RESPONSE TO AN INFLAMMATORY STIMULUS.
 CC -1- SUBUNIT: HOMODIMER.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 C-X-C) (CHEMOKINE CXC).
 DR EMBL; D28772; G517100; -;
 DR EMBL; D14285; G475152; -;
 DR EMBL; U10308; G607814; -;
 DR PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
 KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 22 BY SIMILARITY.
 FT CHAIN 23 101 INTERLEUKIN-8.
 FT DISULFID 34 61 BY SIMILARITY.
 FT DISULFID 36 77 BY SIMILARITY.
 SQ SEQUENCE 101 AA; 11280 MW; 7C49D62D CRC32;
 Query Match 92.1%; Score 93; DB 1; Length 101;
 Best Local Similarity 75.0%; Pred. No. 1.14e-08;
 Matches 9; Conservative 3; Mismatches 0; Indels 0; Gaps 0;
 Db 75 EYCLDPKRWQ 86
 1:|||||:|:|
 QY 1 EICLDPKRWQ 12
 RESULT 3
 ID IL8_PIG STANDARD: PRT; 103 AA.
 AC P26894; P22951;
 DT 01-AUG-1991 (REL. 19, CREATED)
 DT 01-AUG-1992 (REL. 23, LAST SEQUENCE UPDATE)
 DT 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
 DE INTERLEUKIN-8 PRECURSOR (IL-8) (ALVEOLAR MACROPHAGE CHEMOTACTIC FACTOR
 I) (AMCF-I).
 GN IL8.
 OS SUS SCROFA (PIG).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 94103307.
 RA LIN G., PEARSON A.E., SCAMURRA R.W., ZHOU Y., BAARSCH M.J.,
 RA WEISS D.J., MURTAUGH M.P.;
 RL J. BIOL. CHEM. 269:77-85(1994).
 [2]
 RP SEQUENCE FROM N.A.
 RA SANJANMALA M.;
 RL SUBMITTED (JUL-1991) TO EMBL/GENBANK/DBJ DATA BANKS.
 [3]
 RP SEQUENCE FROM N.A., AND SEQUENCE OF 26-45.
 RC TISSUE-LUNG;
 RX MEDLINE; 93041741.
 RA GOODMAN R.B., FOSTER D.C., MATHEWS S.L., OSBORN S.G., KUIPER J.L.,
 RA FORSTROM J.W., MARTIN T.R.;
 RL BIOCHEMISTRY 31:10483-10490(1992).
 [4]

RP REVISION TO 23.
 RA GOODMAN R.B.;
 RN SUBMITTED (MAR-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
 RP SEQUENCE OF 26-45.
 RC STRAIN-YORKSHIRE:
 RX MEDLINE: 91217086.
 RA GOODMAN R.B., FORSTROM J.W., OSBORN S.G., CHI E.Y., MARTIN T.R.;
 RL J. BIOL. CHEM. 266:8455-8463(1991).
 CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
 BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
 CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
 CC RESPONSE TO AN INFLAMMATORY STIMULUS.
 CC -1- SUBUNIT: HOMODIMER.
 CC -1- TISSUE SPECIFICITY: ALVEOLAR MACROPHAGES.
 CC -1- INDUCTION: BY LIPOPOLYSACCHARIDE.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 C-X-C) (CHEMOKINE CXCL).
 CC EMBL: M86923; G164521; -;
 DR EMBL: X61151; G516197; -;
 DR EMBL: M99367; G1235612; -;
 DR PIR: A44253; A44253.
 DR PIR: A39819; A39819.
 DR HSSP: P10145; 3118.
 DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
 KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 25
 FT CHAIN 1 25
 FT SIGNAL 1 25
 FT CHAIN 1 25
 FT DISULFID 34 61 INTERLEUKIN-8.
 FT DISULFID 36 77 BY SIMILARITY.
 FT CONFLICT 33 34 RC -> CR (IN REF. 5).
 FT CONFLICT 87 87 K -> KK (IN REF. 2).
 SQ SEQUENCE 103 AA: 11633 MW: A012D59D CRC32;

Query Match
 Best Local Similarity 92.1%; Score 93; DB 1; Length 103;
 Matches 9; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 75 EYCLDPKRWQ 86
 1 EICLDPKRWQ 12

RESULT 4
 ID IL8_BOVIN STANDARD; PRT; 101 AA.
 AC P79255;
 DT 01-NOV-1997 (REL. 35, CREATED)
 DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
 DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
 DE INTERLEUKIN-8 PRECURSOR (IL-8).
 GN IL8.
 OS BOS TAURUS (BOVINE).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA.
 CC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 96304552.
 RA MOREY M.A., POPOWYCH Y., KOMALSKI J., GERLACH G., GODSON D.,
 RA CAMPOS M., BABIUK L.A.;
 RL MICROB. PATHOG. 20:203-212(1996).
 CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
 BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
 CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
 CC RESPONSE TO AN INFLAMMATORY STIMULUS (BY SIMILARITY).
 CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 C-X-C) (CHEMOKINE CXCL).
 CC EMBL: S62588; G1699354; -;
 DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
 KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 22
 FT CHAIN 23 101 BY SIMILARITY.
 FT DISULFID 34 61 INTERLEUKIN-8.
 FT DISULFID 36 77 BY SIMILARITY.
 FT CONFLICT 50 50 K -> I (IN REF. 2).
 SQ SEQUENCE 101 AA: 11402 MW: CB32CC30 CRC32;

FT DISULFID 36 77 BY SIMILARITY.
 SQ SEQUENCE 101 AA: 11291 MW: 0E39C526 CRC32;

Query Match
 Best Local Similarity 89.1%; Score 90; DB 1; Length 101;
 Matches 8; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

Db 75 EYCLDPKRWQ 86
 1 EICLDPKRWQ 12

RESULT 5
 ID IL8_RABIT STANDARD; PRT; 101 AA.
 AC P19874;
 DT 01-FEB-1991 (REL. 17, CREATED)
 DT 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
 DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
 DE INTERLEUKIN-8 PRECURSOR (IL-8) (NEUTROPHIL ATTRACTANT/ACTIVATION
 DE PROTEIN-1) (NAP-1) (PERMEABILITY FACTOR 1) (RPFL).
 GN IL8.
 OS ORYCTOLAGUS CUNICULUS (RABBIT).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA.
 CC EUTHERIA; LAGOMORPHA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX STRAIN-NEW ZEALAND WHITE; TISSUE-SPLEEN;
 RX MEDLINE: 91225489.
 RA YOSHIMURA T., YUHKI N.;
 RL J. IMMUNOL. 146:3483-3488(1991).
 RN (2)
 RC SEQUENCE OF 23-53.
 RC STRAIN-NEW ZEALAND WHITE; TISSUE-PERITONEAL CAVITY;
 RX MEDLINE: 91058518.
 RA BEAUBIEN B.C., COLLINS P.D., JOSE P.J., TOTTY N.F., HSUAN J.,
 RA WATERFIELD M.D., WILLIAMS T.J.;
 RL BIOCHEM. J. 271:797-801(1990).
 CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
 BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
 CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
 CC RESPONSE TO AN INFLAMMATORY STIMULUS.
 CC -1- SUBUNIT: HOMODIMER.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 C-X-C) (CHEMOKINE CXCL).
 CC EMBL: M57439; G165553; -;
 DR PIR: S13052; S13052.
 DR HSSP: P10145; 3118.
 DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
 KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 22
 FT CHAIN 23 101 INTERLEUKIN-8.
 FT DISULFID 34 61 BY SIMILARITY.
 FT DISULFID 36 77 BY SIMILARITY.
 FT CONFLICT 50 50 K -> I (IN REF. 2).
 SQ SEQUENCE 101 AA: 11402 MW: CB32CC30 CRC32;

Query Match
 Best Local Similarity 89.1%; Score 90; DB 1; Length 101;
 Matches 9; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Db 75 EYCLDPKRWQ 86
 1 EICLDPKRWQ 12

RESULT 6
 ID MCP1_HUMAN STANDARD; PRT; 99 AA.
 AC P13500;
 DT 01-JAN-1990 (REL. 13, CREATED)
 DT 01-JAN-1990 (REL. 13, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE CHEMOTACTIC
 DE AND ACTIVATING FACTOR) (MCAF) (MONOCYTE SECRETORY PROTEIN JE)

DE (MONOCYTE CHEMOTACTIC PROTEIN 1) (HC11) (SMALL INDUCIBLE CYTOKINE
A2).
GN SCYA2 OR MCP1.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
CC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 8915682.
RA FURUTANI Y., NOMURA H., NOTAKE M., OYAMADA Y., FUKUI T., YAMADA M.,
RA LARSEN C.G., OPPENHEIM J.J., MATSUSHIMA K.;
RN BIOCHEM. BIOPHYS. RES. COMMUN. 159:249-255(1989).
RP [2]
RX SEQUENCE FROM N.A.
RX MEDLINE: 9009780.
RA ROLLINS B.J., STIER P., ERNST T., WONG G.G.;
RN MOL. CELL. BIOL. 9:4687-4695(1989).
RN [3]
RP SEQUENCE FROM N.A.
RX MEDLINE: 8915605.
RA YOSHIMURA T., YUHKI N., MOORE S.K., APPELLA E., LERMAN M.I.,
RA LEONARD E.J.;
RN FEBS LETT. 244:487-493(1989).
RN [4]
RP SEQUENCE FROM N.A.
RX MEDLINE: 90290466.
RA SHY Y.J., LI Y.S., KOLATKUDY P.E.;
RN BIOCHEM. BIOPHYS. RES. COMMUN. 169:346-351(1990).
RN [5]
RP SEQUENCE FROM N.A.
RX MEDLINE: 91207938.
RA CHANG H.C., HSU F., FREEMAN G.J., GRIFFIN J.D., REINHERZ E.L.;
RN INT. IMMUNOL. 1:388-399(1989).
RN [6]
RP SEQUENCE FROM N.A.
RX MEDLINE: 94150478.
RA LI Y.S., SHY Y.J., WRIGHT J.G., VALENTE A.J., CORNHILL J.F.,
RA KOLATKUDY P.E.;
RN MOL. CELL. BIOCHEM. 126:61-68(1993).
RN [7]
RP SEQUENCE FROM N.A.
RX MEDLINE: 92095166.
RA YOSHIMURA T., LEONARD E.J.;
RN ADV. EXP. MED. BIOL. 305:47-56(1991).
RN [8]
RP SEQUENCE OF 24-99.
RX MEDLINE: 89184525.
RA ROBINSON E.A., YOSHIMURA T., LEONARD E.J., TANAKA S., GRIFFIN P.R.,
RA SHARANOWITZ J., HUNT D.F., APPELLA E.;
RN PROC. NATL. ACADE. SCI. U.S.A. 86:1850-1854(1989).
RN [9]
RP SEQUENCE OF 29-53 AND 82-92.
RX MEDLINE: 90211336.
RA DECOCK B., CONINGS R., LENAERTS J.-P., BILLIV A., VAN DAMME J.;
RN BIOCHEM. BIOPHYS. RES. COMMUN. 167:904-909(1990).
RN [10]
RP 3D-STRUCTURE MODELLING.
RX MEDLINE: 91312872.
RA GRONENBORN A.M., CLORE G.M.;
RN PROTEIN ENG. 4:263-269(1991).
RN [11]
RP X-RAY CRYSTALLOGRAPHY (1.85 ANGSTROMS).
RX MEDLINE: 97143315.
RA LUBROWSKI J., BUJACZ G., DOMAILLE P.J., HANDEL T.M., WLODAMER A.;
RN NAT. STRUCT. BIOL. 4:64-69(1997).
RN [12]
RP STRUCTURE BY NMR.
RX MEDLINE: 96234959.
RA HANDEL T.M., DOMAILLE P.J.;
RN BIOCHEMISTRY 35:6569-6584(1996).
RN [13]
RP EFFECT OF DELETION OF N-TERMINAL RESIDUES.
RX MEDLINE: 96195223.

RA WEBER M., UGUCCIONI M., BAGGIOLINI M., CLARK-LEWIS I., DAHINDEN C.A.;
RN J. EXP. MED. 183:681-685(1996).
RN [14]
RP MUTAGENESIS.
RX MEDLINE: 94253189.
RA ZHANG Y.J., RUTLEDGE B.J., ROLLINS B.J.;
RN J. BIOL. CHEM. 269:15918-15924(1994).
RN [15]
RP SUBUNIT.
RX MEDLINE: 97053697.
RA KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.;
RN FEBS LETT. 395:277-282(1996).
RN [16]
RP FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND BASOPHILS
BUT NOT NEUTROPHILS OR EOSINOPHILS. AUGMENTS MONOCYTE ANTI-TUMOR
ACTIVITY. HAS BEEN IMPLICATED IN THE PATHOGENESIS OF DISEASES
CHARACTERIZED BY MONOCYTIC INFILTRATES, LIKE PSORIASIS, RHEUMATOID
ARTHRITIS OR ATHEROSCLEROSIS. MAY BE INVOLVED IN THE RECRUITMENT
OF MONOCYTES INTO THE ARTERIAL WALL DURING THE DISEASE PROCESS OF
ATHEROSCLEROSIS.
CC -I- SUBUNIT: MONOMER OR HOMODIMER. IN EQUILIBRIUM.
CC -I- PTM: PROCESSING AT THE N-TERMINUS CAN REGULATE RECEPTOR AND TARGET
CELL SELECTIVITY. DELETION OF THE AMINO-TERMINAL RESIDUE CONVERTS
IT FROM AN ACTIVATOR OF BASOPHIL TO AN EOSINOPHIL CHEMOTACTANT.
CC -I- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
CC EMBL: M31626; G386961; -.
DR EMBL: M30816; G386961; JOINED.
DR EMBL: M31625; G386961; JOINED.
DR EMBL: M24545; G307163; -.
DR EMBL: M28226; G338009; -.
DR EMBL: X14768; G34514; -.
DR EMBL: M37719; G467124; -.
DR EMBL: M28223; G338007; JOINED.
DR EMBL: M28224; G338007; JOINED.
DR EMBL: S69738; G545465; -.
DR EMBL: S71513; G240868; -.
DR EMBL: A17786; G641145; -.
DR PIR: A35474; A35474.
DR PIR: S03339; S03339.
DR PDB: IDOK: 12-MAR-97.
DR PDB: IDOL: 12-MAR-97.
DR PDB: IDOM: 14-OCT-96.
DR PDB: IDON: 14-OCT-96.
DR PDB: IMCA: 15-OCT-94.
DR MIM: 158105; -.
DR PROSITE: PS00472; SMALL CYTOKINES CC; 1.
KV CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; 3D-STRUCTURE.
FT SIGNAL 1 23
FT CHAIN 24 99
FT MOD_RES 24 24
FT DISULFID 34 59
FT DISULFID 35 75
FT CARBOHYD 37 37
FT VARIANT 76 76
FT MUTAGEN 24 24
FT MUTAGEN 25 32
FT MUTAGEN 24 85
FT MUTAGEN 24 91
FT MUTAGEN 26 26
FT MUTAGEN 29 29
FT MUTAGEN 47 47
FT MUTAGEN 50 50
FT MUTAGEN 51 51
FT MUTAGEN 53 53
FT MUTAGEN 91 91
SQ SEQUENCE 99 AA; 11025 MW; 5355B695 CRC32;
Query Match 87.1%; Score 88; DB 1; Length 99;
Best Local Similarity 83.3%; Pred. No. 1.93e-07;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
Db 73 EICADPKOKWQ 84

QY 1 EICLDPKQKWQ 12

RESULT 7
ID MCP1_CANFA STANDARD: PRT; 101 AA.
AC P52203;
DT 01-OCT-1996 (REL. 34, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
CHEMOTRACTANT PROTEIN-1).
GN SCY2 OR MCP1
OS CANIS FAMILIARIS (DOG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; CARNIVORA.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=JUGULAR VEIN ENDOTHELIAL;
RA MEDLINE; 97176620.
RA KUMAR A.G., BALLANTYNE C.M., MICHAEL L.H., KURIELKA G.L., YOUNER K.A.,
RA LINDSEY M.L., HARKINS H.K., BIRDSALL H.H., MACKAY C.R., LAROSA G.J.,
RA ROSSSEN R.D., SMITH C.W., ENTMAN M.L.;
RA CIRCULATION 95:693-700(1997).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS. IMPORTANT FACTOR IN THE COURSE OF THE INFLAMMATORY
CC REACTION TO REPERFUSION OF THE PREVIOUSLY ISCHEMIC MYOCARDIUM.
CC MAY PLAY A SIGNIFICANT ROLE IN MONOCYTE TRAFICKING INTO THE
CC REPERFUSED MYOCARDIUM.
CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC -1- INDUCTION: BY TNF-ALPHA.
CC -1- TISSUE SPECIFICITY: ENDOTHELIUM OF SMALL VEINS AND INTRAFASCICULAR
CC VEINS, AND INFILTRATING LEUCOCYTES.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL; U29653; G1144186; -
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23
FT CHAIN 24 101
FT MOD_RES 24 24
FT DISULFID 34 59
FT DISULFID 35 75
FT SEQUENCE 101 AA; 11121 MW; A7075B14 CRC32;
SQ

Query Match 87.1%; Score 88; DB 1; Length 101;
Best Local Similarity 83.3%; Pred. No. 1.93e-07;
Matches 10; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 73 EICADPRQKWQ 84
QY 1 EICLDPKQKWQ 12

RESULT 8
ID MCP1_PIG STANDARD: PRT; 99 AA.
AC P42831;
DT 01-NOV-1995 (REL. 32, CREATED)
DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
GN SCY2.
OS SUS SCROFA (PIG).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE; 94183284.
RA HOSANG K., KNOKE I., KLAUDINY J., WEMPE F., WUTTEKE W., SCHEIT K.H.;
RA BIOCHEM. BIOPHYS. RES. COMMUN. 199;962-968(1994).
RN [2]
RP SEQUENCE FROM N.A.

RC TISSUE-BRAIN;
RA ZACH O.R.F.;
RL SUBMITTED (JUL-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
CC NEUTROPHILS.
CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL; 248479; G683717; -
DR EMBL; X79416; G872313; -
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23
FT CHAIN 24 99
FT MOD_RES 24 24
FT DISULFID 34 59
FT DISULFID 35 75
FT SEQUENCE 99 AA; 10976 MW; ECC3AFB4 CRC32;
SQ

Query Match 86.1%; Score 87; DB 1; Length 99;
Best Local Similarity 75.0%; Pred. No. 3.39e-07;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Db 73 EICADPRQKWQ 84
QY 1 EICLDPKQKWQ 12

RESULT 9
ID MCP2_BOVIN STANDARD: PRT; 99 AA.
AC Q09141;
DT 01-NOV-1995 (REL. 32, CREATED)
DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
CHEMOTRACTANT PROTEIN 2).
GN SCY2 OR MCP2.
OS BOS TAURUS (BOVINE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE; 94114084.
RA WEMPE F., HANES J., SCHEIT K.H.;
RL DNA CELL BIOL. 13;1-8(1994).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN
CC CAN BIND HEPARIN.
CC -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL; S67954; E118856; -
DR EMBL; S67956; G544997; -
DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.
FT SIGNAL 1 23
FT CHAIN 24 99
FT MOD_RES 24 24
FT DISULFID 34 59
FT DISULFID 35 75
FT SEQUENCE 99 AA; 10900 MW; 9BA3CD26 CRC32;
SQ

Query Match 84.2%; Score 85; DB 1; Length 99;
Best Local Similarity 66.7%; Pred. No. 1.03e-06;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 73 DVCADPRQKWQ 84
QY 1 EICLDPKQKWQ 12

RESULT 10

ID MC94_HUMAN STANDARD: PRT: 98 AA.
 AC Q99616;
 DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 4 PRECURSOR (MCP-4) (MONOCYTE
 DE CHEMOATTRACTANT PROTEIN 4) (CK-BETA10) (MCC-1).
 GN SCY13 OR MCP4 OR NCC1.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]
 RN SEQUENCE FROM N.A.
 RC TISSUE=HEART;
 RA GARCIA-ZEBEDA E.A., COMBADIERE C., ROTHENBERG M.E., SARAFI M.N.,
 RA LAVIGNE F., HAMID O., MURPHY P.M., LUSTER A.D.;
 RL J. IMMUNOL. 157:5613-5626(1996).
 RN [2]
 RN SEQUENCE FROM N.A., AND SEQUENCE OF 17-98.
 RC TISSUE=FETAL;
 RX MEDLINE: 962335049.
 RA UGUCCIONI M., LOETSCHER P., FORSSMANN U., DEMALD B., LI H., LIMA S.H.,
 RA LI Y., KREIDER B., GAROTTA G., THELEN M., BAGGIOLINI M.;
 RL J. EXP. MED. 183:2379-2384(1996).
 RN [3]
 RN SEQUENCE FROM N.A., AND SEQUENCE OF 22-33.
 RC TISSUE=FETAL;
 RX MEDLINE: 97341179.
 RA BERKHOUT T.A., SARAU H.M., MOORES K., WHITE J.R., ELSHOUBAGY N.,
 RA APPELBAUM E., REAPE T.J., BRAWER M., MATWANA J., FOLEY J.J.,
 RA SCHWIDT D.B., IMBURGA C., MACMURTY D., MATTHEWS J., O'DONNELL K.,
 RA O'SHANNESST D., SCOTT M., GROOT P.H.E., MACPHEE C.;
 RL J. BIOL. CHEM. 272:16404-16413(1997).
 RN [4]
 RN SEQUENCE FROM N.A.
 RA DANTE M., GIBSON A.;
 RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCYTES,
 CC BASOPHILS AND EOSINOPHILS, BUT NOT NEUTROPHILS. SIGNALS THROUGH
 CC CCR2B AND CCR3 RECEPTORS. PLAYS A ROLE IN THE ACCUMULATION OF
 CC LEUKOCYTES AT BOTH SIDES OF ALLERGIC AND NONALLERGIC INFLAMMATION.
 CC MAY BE INVOLVED IN THE RECRUITMENT OF MONOCYTES INTO THE ARTERIAL
 CC WALL DURING THE DISEASE PROCESS OF ARTERIOSCLEROSIS. MAY PLAY A
 CC ROLE IN THE MONOCYTE ATTRACTION IN TISSUES CHRONICALLY EXPOSED TO
 CC EXOGENOUS PATHOGENS.
 CC -1- MASS SPECTROMETRY: MW-9314; MW-ERR-30; METHOD=MALDI; RANGE=17-98.
 CC -1- MASS SPECTROMETRY: MW-8760; MW-ERR-30; METHOD=MALDI; RANGE=22-98.
 CC -1- MASS SPECTROMETRY: MW-8575; MW-ERR-30; METHOD=MALDI; RANGE=24-98.
 CC -1- INDUCTION: BY INTERLEUKIN-1 AND TNF-ALPHA.
 CC -1- TISSUE SPECIFICITY: WIDELY EXPRESSED. FOUND IN SMALL INTESTINE,
 CC THYMUS, COLON, LUNG, TRACHEA, STOMACH AND LYMPH NODE. LOW LEVELS
 CC SEEN IN THE PULMONARY ARTERY SMOOTH MUSCLE CELLS.
 CC -1- THIS PROTEIN CAN BIND HEPARIN.
 CC -1- PTM: ONE MAJOR ISOFORM MCP-4, AND TWO MINOR ISOFORMS (LA)MCP-4 AND
 CC (LB)MCP-4 IS ABOUT 30 FOLD LESS ACTIVE THAN MCP-4.
 CC -1- SIMILARITY: BELONGS TO THE INTERCINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL: U46767; G1732123; -;
 CC EMBL: AC002482; G2340091; -;
 CC MIM: 601391; -;
 DR PROSITE: PS00472; SMALL CYTOKINES.CC; 1.
 DR CYTOKINE; CHEMOKINE; SIGNAL; GLYCOPROTEIN; INFLAMMATORY RESPONSE.
 KW SIGNAL
 FT CHAIN 1 23
 FT MOD_RES 24 98 MONOCYTE CHEMOTACTIC PROTEIN 4.
 FT DISULFID 24 24 PYRROLIDONE CARBOXYLIC ACID.
 FT DISULFID 34 58 BY SIMILARITY.
 FT CARBOHYD 35 74 BY SIMILARITY.
 FT CARBOHYD 29 29 POTENTIAL.
 SQ SEQUENCE 98 AA; 10986 MM; DF52F6BC CRC32;
 Query Match 83.2%; Score 84; DB 1; Length 98;

Best Local Similarity 75.0%; Pred. No. 1.79e-06;
 Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
 Db 72 EICADPKREKWKQ 83
 QY 1 EICADPKRKWKQ 12
 RESULT 11
 ID IL8_HUMAN STANDARD: PRT: 99 AA.
 AC P10145;
 DT 01-MAR-1989 (REL. 10, CREATED)
 DT 01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
 DE INTERLEUKIN-8 PRECURSOR (IL-8) (MONOCYTE-DERIVED NEUTROPHIL
 DE CHEMOTACTIC FACTOR) (MNCFC) (T-CELL CHEMOTACTIC FACTOR) (NEUTROPHIL-
 DE ACTIVATING PROTEIN 1) (NAP-1) (LYMPHOCYTE-DERIVED NEUTROPHIL-
 DE ACTIVATING FACTOR) (LYNAP) (PROTEIN 3-10C) (NEUTROPHIL-ACTIVATING
 DE FACTOR) (NAF) (GRANULOCYTE CHEMOTACTIC PROTEIN 1) (GCP-1) (EMOCTAKIN).
 GN IL8.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; PRIMATES.
 RN [1]
 RN SEQUENCE FROM N.A.
 RX MEDLINE: 88258376.
 RA MATSUSHIMA K., MORISHITA K., YOSHIMURA T., LAVU S., KOBAYASHI Y.,
 RA LEW W., APPELLA E., KUNG H., LEONARD E.J., OPPENHEIM J.J.;
 RL J. EXP. MED. 167:1883-1893(1988).
 RN [2]
 RN SEQUENCE FROM N.A.
 RX MEDLINE: 87224164.
 RA SCHWIDT J., WEISSMANN C.;
 RL J. IMMUNOL. 139:250-256(1987).
 RN [3]
 RN SEQUENCE FROM N.A.
 RX MEDLINE: 89313739.
 RA KOWALSKI J., DENHART D.T.;
 RL MOL. CELL. BIOL. 9:1946-1957(1989).
 RN [4]
 RN SEQUENCE FROM N.A.
 RX MEDLINE: 89309826.
 RA MUKAIDA N., SHIROO M., MATSUSHIMA K.;
 RL J. IMMUNOL. 143:1365-1371(1988).
 RN [5]
 RN SEQUENCE FROM N.A.
 RA ISHIKAWA J.;
 RL SUBMITTED (JAN-1993) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [6]
 RN SEQUENCE OF 23-46.
 RX MEDLINE: 89246368.
 RA GOLDS E.E., MASON P., NYIRKOS P.;
 RL BIOCHEM. J. 259:585-588(1989).
 RN [7]
 RN SEQUENCE OF 23-54.
 RX MEDLINE: 89279141.
 RA SUZUKI K., MIYASAKA H., OTA H., YAMAKAWA Y., TAGAWA M., KURAMOTO A.,
 RA MIZUNO S.;
 RL J. EXP. MED. 169:1895-1901(1989).
 RN [8]
 RN SEQUENCE OF 28-99.
 RX MEDLINE: 88162914.
 RA GREGORY H., YOUNG J., SCHROEDER J.M., MROWIETZ U., CHRISTOPHERS E.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 151:883-890(1988).
 RN [9]
 RN SEQUENCE OF 28-59.
 RX MEDLINE: 88106502.
 RA WALZ A., PEYERT P., ASCHAUER H., BAGGIOLINI M.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 149:755-761(1987).
 RN [10]
 RN SEQUENCE OF 28-69.
 RX MEDLINE: 88097462.
 RA YOSHIMURA T., MATSUSHIMA K., TANAKA S., ROBINSON E.A., APPELLA E.,

RA OPPEHEIM J.J., LEONARD E.J.;
 RL PROC. NATL. ACAD. SCI. U.S.A. 84:9233-9237(1987).
 RP [11]
 RN STRUCTURE BY NMR.
 RP MEDLINE: 90234679.
 RA CLORE G.M., APPELLA E., YAMADA M., MATSUSHIMA K., GRONENBORN A.M.;
 RL BIOCHEMISTRY 29:1689-1696(1990).
 RN [12]
 RP X-RAY CRYSTALLOGRAPHY (1.6 ANGSTROMS).
 RX MEDLINE: 90216714.
 RA BALDWIN E.T., FRANKLIN K.A., APPELLA E., YAMADA M., MATSUSHIMA K.,
 RL WLODAWER A., WEBER I.T.;
 RN J. BIOL. CHEM. 265:6851-6853(1990).
 RP [13]
 RN X-RAY CRYSTALLOGRAPHY, AND STRUCTURE BY NMR.
 RX MEDLINE: 91171286.
 RA CLORE G.M., GRONENBORN A.M.;
 RL J. MOL. BIOL. 217:611-620(1991).
 RN [14]
 RP X-RAY CRYSTALLOGRAPHY (1.6 ANGSTROMS), AND STRUCTURE BY NMR.
 RX MEDLINE: 91110556.
 RA BALDWIN E.T., WEBER I.T., ST CHARLES R., XUAN J.C., APPELLA E.,
 RL YAMADA M., MATSUSHIMA K., EDWARDS B.F., CLORE G.M., GRONENBORN A.M.;
 RN PROC. NATL. ACAD. SCI. U.S.A. 88:502-506(1991).
 RP [15]
 RN N-TERMINAL FORMS.
 RX MEDLINE: 91006326.
 RA VAN DAMME J., RAMPART M., CONING R., DECOCK B., VAN OSSELAER N.,
 RL WILLEMS J., BILLIAU A.;
 RN EUR. J. IMMUNOL. 20:2113-2118(1990).
 RP [16]
 RN N-TERMINAL FORMS.
 RX MEDLINE: 89231715.
 RA VAN DAMME J., VAN BEUMEN J., CONINGS R., DECOCK B., BILLIAU A.;
 RN EUR. J. BIOCHEM. 181:337-344(1989).
 RP [17]
 RN SYNTHESIS OF 28-99.
 RX MEDLINE: 91175767.
 RA CLARK-LEWIS I., MOSE B., WALZ A., BAGGIOLINI M., SCOTT G.J.,
 RL AEBERSOLD R.;
 RN BIOCHEMISTRY 30:3128-3135(1991).
 RP [18]
 RN REVIEW.
 RX MEDLINE: 92347562.
 RA BAGGIOLINI M., CLARK-LEWIS I.;
 RL FEBS LETT. 307:97-101(1992).
 CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
 CC BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
 CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
 CC RESPONSE TO AN INFLAMMATORY STIMULUS.
 CC -1- SUBUNIT: HOMODIMER.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 CC C-X-C) (CHEMOKINE CXCL).
 CC EMBL: Y00787; G34519; -;
 CC UR EMBL: M17017; G178580; -;
 CC DR EMBL: M26383; G1863628; -;
 CC DR EMBL: M28130; G1863628; -;
 CC DR EMBL: D14283; G219916; -;
 CC DR PIR: A37034; A37034;
 CC DR PIR: S03975; S03975;
 CC DR PIR: S04216; S04216;
 CC DR PDB: 1IL8; 15-JAN-91.
 CC DR PDB: 2IL8; 15-JAN-91.
 CC DR PDB: 3IL8; 15-OCT-92.
 CC DR PDB: 1ICW; 12-MAR-97.
 CC DR PDB: 1IKL; 15-OCT-95.
 CC DR PDB: 1IKM; 15-OCT-95.
 CC DR MIM: 146930; -;
 CC DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
 CC CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL; 3D-STRUCTURE.
 FT SIGNAL 1 22
 FT CHAIN 23 99 INTERLEUKIN-8
 FT PROPEP 23 30 ONE OR MORE OF THESE RESIDUES ARE MISSING

FT DISULFID 34 61 IN SOME MATURE FORMS OF IL-8.
 FT DISULFID 36 77
 FT CONFLICT 53 53 R -> L (IN REF. 7).
 FT HELIX 46 48
 FT STRAND 49 55
 FT STRAND 58 58
 FT TURN 59 58
 FT TURN 59 60
 FT STRAND 61 61
 FT STRAND 65 70
 FT TURN 71 72
 FT STRAND 75 78
 FT TURN 80 81
 FT HELIX 83 97
 FT TURN 98 98
 SO SEQUENCE 99 AA; 11098 MW; 89D1891F CRC32;
 Query Match Score 84; DB 1; Length 99;
 Best Local Similarity 66.7%; Pred. No. 1.79e-06;
 Matches 8; Conservative 4; Mismatches 0; Indels 0; Gaps 0;
 Db 75 ELCLDPKRWVQ 86
 QY 1 ELCLDPKRWVQ 12
 RESULT 12
 ID IL8_CAVPO STANDARD; PRT; 101 AA.
 AC P49113;
 DT 01-FEB-1996 (REL. 33, CREATED)
 DT 01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
 DT 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
 DE INTERLEUKIN-8 PRECURSOR (IL-8) (NEUTROPHIL ATTRACTANT PROTEIN 1)
 DE (NAP-1).
 GN IL8.
 OS CAVIA PORCELLUS (GUINEA PIG).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-SPLEEN.
 RX MEDLINE: 94065176.
 RA YOSHIMURA T., JOHNSON D.G.;
 RL J. IMMUNOL. 151:6225-6236(1993).
 CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
 CC BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
 CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
 CC RESPONSE TO AN INFLAMMATORY STIMULUS (BY SIMILARITY).
 CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 CC C-X-C) (CHEMOKINE CXCL).
 CC DR EMBL: I04986; G459765; -;
 CC DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
 CC CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 22
 FT CHAIN 23 101 INTERLEUKIN-8
 FT DISULFID 34 61 BY SIMILARITY.
 FT DISULFID 36 77 BY SIMILARITY.
 SO SEQUENCE 101 AA; 11414 MW; E13FB521 CRC32;
 Query Match Score 84; DB 1; Length 101;
 Best Local Similarity 66.7%; Pred. No. 1.79e-06;
 Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;
 Db 75 QCLDPKRWVQ 86
 QY 1 ELCLDPKRWVQ 12
 RESULT 13
 ID MCPA_BOVIN STANDARD; PRT; 99 AA.
 AC P28231;
 DT 01-DEC-1992 (REL. 24, CREATED)

DT 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
 DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1A PRECURSOR (MCP-1A) (MCP-1) (ACIDIC
 DE SEMINAL FLUID PROTEIN).
 OS BOS TAUROS (BOVINE).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-SEMINAL PLASMA;
 RX MEDLINE; 92096117.
 RA WEMPE F., HENSCHEN A., SCHEIT K.H.;
 RL DNA CELL BIOL. 10:671-679(1991).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC TISSUE-SEMINAL PLASMA;
 RX MEDLINE; 92181448.
 RA WEMPE F., EINSPIANIER R., SCHEIT K.H.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 183:232-237(1992).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE; 94338337.
 RA WEMPE F., KUHLMANN J.K., SCHEIT K.H.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 202:1272-1279(1994).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
 CC NEUTROPHILS.
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL; L32659; G624394; -.
 DR EMBL; M84602; G163395; -.
 DR PIR; A39296; A39296.
 DR PIR; JC2336; JC2336.
 DR HSP; P13500; IMCA.
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; SIGNAL.
 FT SIGNAL 1 23 BY SIMILARITY.
 FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 1A.
 FT MOD_RES 24 24 PYROLIDONE CARBOXYLIC ACID (BY
 FT DISULFID 34 59 SIMILARITY).
 FT DISULFID 35 75 BY SIMILARITY.
 SQ SEQUENCE 99 AA; 11114 MW; C8F5821D CRC32;
 Query Match 82.2%; Score 83; DB 1; Length 99;
 Best Local Similarity 75.0%; Pred. No. 3.10e-06;
 Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
 Db 73 ELCDPKOKMWQ 84
 QY 1 ELCDPKOKMWQ 12
 RESULT 14
 ID MCP1_RABBIT STANDARD; PRT; 125 AA.
 AC P28292;
 DT 01-DEC-1992 (REL. 24, CREATED)
 DT 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
 GN SC2A2.
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; LAGOMORPHA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-NEW ZEALAND WHITE; TISSUE-SPLEEN;
 RX MEDLINE; 91225489.
 RA YOSHIMURA T., YUHKI N.;
 RL J. IMMUNOL. 146:3483-3488(1991).
 RN [2]
 RP FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
 CC NEUTROPHILS.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER, IN EQUILIBRIUM (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE

CC C-C) (CHEMOKINE CC).
 DR EMBL; M57440; G163470; -.
 DR HSP; P13500; IMCA.
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
 KW CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
 FT SIGNAL 1 23 BY SIMILARITY.
 FT CHAIN 24 125 MONOCYTE CHEMOTACTIC PROTEIN 1.
 FT MOD_RES 24 24 PYROLIDONE CARBOXYLIC ACID (BY
 FT DISULFID 34 59 SIMILARITY).
 FT DISULFID 35 75 BY SIMILARITY.
 FT CARBOHYD 40 40 POTENTIAL.
 FT CARBOHYD 55 55 POTENTIAL.
 FT CARBOHYD 112 112 POTENTIAL.
 SQ SEQUENCE 125 AA; 13776 MW; FBAC9D27 CRC32;
 Query Match 81.2%; Score 82; DB 1; Length 125;
 Best Local Similarity 81.8%; Pred. No. 5.35e-06;
 Matches 9; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
 Db 74 ICADPKOKMWQ 84
 QY 2 ICADPKOKMWQ 12
 RESULT 15
 ID EOTA_MOUSE STANDARD; PRT; 97 AA.
 AC P48298;
 DT 01-FEB-1996 (REL. 33, CREATED)
 DT 01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
 GN SCYALL.
 OS MUS MUSCULUS (MOUSE).
 CC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 CC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-LUNG;
 RX MEDLINE; 96004658.
 RA ROTHENBERG M.E., LUSTER A.D., LEDER P.;
 RL PROC. NATL. ACAD. SCI. U.S.A. 92:8960-8964(1995).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC STRAIN-C57BL/6J; TISSUE-LUNG;
 RX MEDLINE; 96158746.
 RA GONZALO J.-A., JIA G.-Q., AGUIRRE V., FRIEND D., COYLE A.J.,
 RA JENKINS N.A., LIN G.-S., KATZ H., LICHTMAN A., COPELAND N.G., KOPE M.,
 RA GUTIERREZ-RAMOS J.-C.;
 RL IMMUNITY 4:1-14(1996).
 CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
 CC DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS (A PROMINENT
 CC FEATURE OF ALLERGIC INFLAMMATORY REACTIONS), BUT NOT
 CC LYMPHOCYTES, MACROPHAGES OR NEUTROPHILS.
 CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
 CC -1- TISSUE SPECIFICITY: EXPRESSED CONSTITUTIVELY IN THE THYMUS.
 CC EXPRESSION INDUCIBLE IN THE LUNG (TYPE I ALVEOLAR EPITHELIAL
 CC CELLS), INTESTINE, HEART, SPLEEN, KIDNEY.
 CC -1- INDUCTION: BY INTERFERON-GAMMA AND LIPOPOLYSACCHARIDE (LPS).
 CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 CC EMBL; U26426; G995911; -.
 DR EMBL; U40672; G111937; -.
 DR MGI; MGI:103576; SCYALL.
 DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
 KW EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
 RN INFLAMMATORY RESPONSE.
 FT SIGNAL 1 23 POTENTIAL.
 FT CHAIN 24 97 EOTAXIN.
 FT DISULFID 32 57 BY SIMILARITY.
 FT DISULFID 33 73 BY SIMILARITY.
 SQ SEQUENCE 97 AA; 10893 MW; F85A96BC CRC32;

Query Match 80.2%; Score 81; DB 1; Length 97;
Best Local Similarity 75.0%; Pred. No. 9.23e-06;
Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 71 EICADPKKKWQ 82
||| ||| ||| |||
QY 1 EICLDPKOKWQ 12

RESULT 16
ID EOTA_RAT STANDARD; PRT; 97 AA.
AC P97545: 008780:
DT 15-JUL-1998 (REL. 36, CREATED)
DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
OS RATRUS NORVEGICUS (RAT).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
RN EUTHERIA; RODENTIA.
[1]
RA SEQUENCE FROM N.A.
RA WILLIAMS C.M., NEWTON D.J., WILSON S.A., COLEMAN J.C.,
RA FLANNAGAN B.F.;
RL SUBMITTED (DEC-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
KN [2]
RP SEQUENCE FROM N.A.
RC TISSUE=LUNG;
RA ISHII Y.;
RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -!- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
CC DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
CC FEATURE OF ALLERGIC INFLAMMATORY REACTIONS (BY SIMILARITY).
CC -!- PTM: O-GLYCOSYLATED (PROBABLE).
CC -!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: Y08358; E274141; -.
DR EMBL: U96637; G2098785; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KM EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
KM INFLAMMATORY RESPONSE.
FT SIGNAL 1 23 POTENTIAL.
FT CHAIN 24 97 EOTAXIN.
FT DISULFID 32 57 BY SIMILARITY.
FT DISULFID 33 73 BY SIMILARITY.
FT CARBOHYD 94 94 POTENTIAL.
FT CONFLICT 3 3 L->S (IN REF. 2).
SQ SEQUENCE 97 AA; 10851 MW; 054ED45 CRC32;

Query Match 80.2%; Score 81; DB 1; Length 97;
Best Local Similarity 75.0%; Pred. No. 9.23e-06;
Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 71 EICADPKKKWQ 82
||| ||| ||| |||
QY 1 EICLDPKOKWQ 12

RESULT 17
ID MCP3_HUMAN STANDARD; PRT; 99 AA.
AC P80098:
DT 01-DEC-1992 (REL. 24, CREATED)
DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 3 PRECURSOR (MCP-3) (MONOCYTE
DE CHEMOTACTICANT PROTEIN 3) (NC28).
GN SC1A7 OR MCP3.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A., AND SEQUENCE OF 31-67 AND 71-99.

RX MEDLINE: 93213290.
RA OPDENAKKER G., FROYEN G., FITEN P., PROOST P., VAN DAMME J.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 191:535-542(1993).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 94375065.
RA OPDENAKKER G., FITEN P., NYS G., FROYEN G., VAN ROY N., SPELMAN F.,
RA LAUREYS G., VAN DAMME J.;
RL GENOMICS 21:403-408(1994).
RN [3]
RP SEQUENCE FROM N.A.
RX MEDLINE: 93305913.
RA MINTY A., CHARLON P., GUILLEMOT J.C., KAGHAD M., LIAUZON P.,
RA MAGAZIN M., MILOUX B., MINTY C., RAMOND P., VITA N., LUPKER J.,
RA SHIRE D., FERRARA P., CAPUT D.;
RL EUR. CYTOKINE NETW. 4:99-110(1993).
RN [4]
RP SEQUENCE OF 30-99.
RC TISSUE=OSTEOSARCOMA;
RX MEDLINE: 92308855.
RA VAN DAMME J., PROOST P., LENAERTS J.-P., OPDENAKKER G.;
RL J. EXP. MED. 176:59-65(1992).
RN [5]
RP STRUCTURE BY NMR, AND SUBUNIT.
RX MEDLINE: 97053697.
RA KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.;
RL FEBS LETT. 395:277-282(1996).
RN [6]
RP STRUCTURE BY NMR.
RX MEDLINE: 97263733.
RA MEUNIER S., BERNASAU J.-M., GUILLEMOT J.-C., FERRARA P., DARBON H.;
RL BIOCHEMISTRY 36:4412-4422(1997).
CC -!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND
CC EOSINOPHILS, BUT NOT NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR
CC ACTIVITY. ALSO INDUCES THE RELEASE OF GELATINASE B. THIS PROTEIN
CC CAN BIND HEPARIN.
CC -!- SUBUNIT: MONOMER.
CC -!- PTM: O-GLYCOSYLATED.
CC -!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: X72308; G313708; ALT_INIT.
DR EMBL: X72309; -: NOT_ANNOTATED_CDS.
DR EMBL: X71087; G288399; -.
DR EMBL: X71087; G288398; ALT_INIT.
DR EMBL: X71087; G288397; ALT_INIT.
DR PIR: JC1478; JC1478.
DR PIR: S32322; S32322.
DR PIR: A54678; A54678.
DR PDB: INCV; 15-OCT-97.
DR MIM: 158106; -.
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KM CYTOKINE; CHEMOTAXIS; HEPARIN-BINDING; GLYCOPROTEIN; SIGNAL;
KM INFLAMMATORY RESPONSE: 3D-STRUCTURE.
FT SIGNAL 1 23 MONOCYTE CHEMOTACTIC PROTEIN 3.
FT CHAIN 24 99 PYRROLIDONE CARBOXYLIC ACID.
FT MOD_RES 24 24 BY SIMILARITY.
FT DISULFID 34 59 BY SIMILARITY.
FT DISULFID 35 75 BY SIMILARITY.
FT CARBOHYD 29 29 POTENTIAL.
FT CONFLICT 30 30 T->K (IN REF. 4).
FT CONFLICT 68 70 MISSING (IN REF. 4).
SQ SEQUENCE 99 AA; 11200 MW; 7502E19C CRC32;

Query Match 80.2%; Score 81; DB 1; Length 99;
Best Local Similarity 75.0%; Pred. No. 9.23e-06;
Matches 9; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 73 EICADPTOKWQ 84
||| ||| ||| |||
QY 1 EICLDPKOKWQ 12

RESULT 18

ID SDF1.MOUSE STANDARD: PRT: 89 AA.
AC P40224;
DT 01-FEB-1995 (REL. 31, CREATED)
DE 01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE STROMAL CELL-DERIVED FACTOR 1 PRECURSOR (SDF-1) (PRE-B CELL GROWTH STIMULATING FACTOR) (PBSF) (12-O-TETRADECANOYLPHORBOL 13-ACETATE REPRRESSED PROTEIN 1) (TPARI) (THYMIC LYMPHOMA CELL STIMULATING FACTOR) (TLSEF).
DE (TLSEF).
GN SDF1.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; RODENTIA.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 94181581.
RA NAGASAWA T., KIKUTANI H., KISHIMOTO T.;
RL PROC. NATL. ACAD. SCI. U.S.A. 91:2305-2309(1994).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 93342488.
RA TASHIRO K., TADA H., HEIKER R., SHIROZU M., NAKANO T., HONJO T.;
RL SCIENCE 261:600-603(1993).
RN [3]
RP SEQUENCE FROM N.A.
RX MEDLINE: 95073497.
RA JIANG W., ZHOU P., KAHN S.M., TOMITA N., JOHNSON M.D.,
RA WEINSTEIN I.B.;
RL EXP. CELL RES. 215:284-293(1994).
RN [4]
RP SEQUENCE FROM N.A.
RC STRAIN-AK/7;
RA NOMURA M., NAKATA Y., UZAWA A., NOSE M., AKASHI M., SUZUKI G.;
RL SUBMITTED (DEC-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
CC -1- FUNCTION: CHEMOKINE/ATRACTANT ACTIVE ON T-LYMPHOCYTES, MONOCYTES, BUT NOT NEUTROPHILS.
CC -1- FUNCTION: STIMULATES THE PROLIFERATION OF BONE MARROW-DERIVED B PROGENITOR CELLS IN THE PRESENCE OF IL-7 AS WELL AS GROWTH OF THE STROMAL CELL-DEPENDENT B-CELL CLONE DW34 CELLS.
CC -1- ALTERNATIVE PRODUCTS: TWO DIFFERENT FORMS (ALPHA AND BETA) ARE PROBABLY GENERATED BY ALTERNATIVE SPLICING.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE C-X-C) (CHEMOKINE CXCL).
CC EMBL: D21072; G468457; -;
CC EMBL: L12028; G393180; -;
CC EMBL: L12030; G393182; -;
CC EMBL: S74318; G786394; -;
CC EMBL: D43804; G1304174; -;
CC EMBL: D43805; G1304175; -;
CC PIR: A53497; A53497;
DR MGD; MGI:103555; SDF1.
DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; FALSE NEG.
KW CYTOKINE; CHEMOKINE; GROWTH FACTOR; SIGNAL; ALTERNATIVE SPLICING.
FT SIGNAL 1 19
FT CHAIN 20 89
FT DISULFID 30 55
FT DISULFID 32 71
FT VARSPLIC 89 89
SQ SEQUENCE 89 AA; 10032 MW; 222CAE52 CRC32;
Query Match 79.2%; Score 80; DB 1; Length 89;
Best Local Similarity 66.7%; Pred. No. 1.59e-05;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

DT 01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE STROMAL CELL-DERIVED FACTOR 1 PRECURSOR (SDF-1) (PRE-B CELL GROWTH STIMULATING FACTOR) (PBSF).
GN SDF1.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A.
RA SPOTILIA L.D.;
RL SUBMITTED (OCT-1994) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 96039262.
RA SHIROZU M., NAKANO T., INAZAWA J., TASHIRO K., TADA H.,
RA SHINOHARA T., HONJO T.;
RL GENOMICS 28:495-500(1995).
RN [3]
RP STRUCTURE BY NMR OF 22-88.
RX MEDLINE: 98046030.
RA CRUMP M.P., GONG J.H., LOETSCHER P., RAJARATHNAM K., AMARA A.,
RA ARENZANA-SEISDEDOS F., VIRELIZIER J.L., BAGGIOLINI M., SYKES B.D.,
RA CLARK-LEWIS I.;
RL EMBO J. 16:6996-7007(1997).
CC -1- FUNCTION: CHEMOKINE/ATRACTANT ACTIVE ON T-LYMPHOCYTES, MONOCYTES, BUT NOT NEUTROPHILS.
CC -1- ALTERNATIVE PRODUCTS: TWO DIFFERENT FORMS (ALPHA AND BETA) ARE PROBABLY GENERATED BY ALTERNATIVE SPLICING.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE C-X-C) (CHEMOKINE CXCL).
CC EMBL: U16752; G571508; -;
CC EMBL: L36033; G1220366; -;
CC PDB: 1SDF; 28-JAN-98.
CC PDB: 2SDF; 17-JUN-98.
DR MM: 600835; -;
DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; FALSE NEG.
KW CYTOKINE; CHEMOKINE; GROWTH FACTOR; SIGNAL; ALTERNATIVE SPLICING.
FT SIGNAL 1 19
FT CHAIN 20 93
FT DISULFID 30 55
FT DISULFID 32 71
SQ SEQUENCE 93 AA; 10666 MW; 4B9911C7 CRC32;
Query Match 79.2%; Score 80; DB 1; Length 93;
Best Local Similarity 66.7%; Pred. No. 1.59e-05;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

Db 69 QVCIDPRKXWQ 80
QY 1 EICLDPKXWQ 12
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ID FOTA.HUMAN STANDARD: PRT: 97 AA.
AC P51671; P50877; Q92490; Q92491;
DT 01-OCT-1996 (REL. 34, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DE 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
GN SCY11.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 96181758.
RA GARCIA-ZEPEDA E.A., ROTHENBERG M.E., OMNBEY T.R., LEDER P.,
RA LOSTER A.D.;
RL NAT. MED. 2:449-456(1996).
RN [2]
RP SEQUENCE FROM N.A.

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RX MEDLINE: 96189937.
RA PONAETH P.D., OIN S., RINGLER D.J., CLARK-LEWIS I., WANG J., KASSAM N.,
RA SMITH H., SHI X., GONZALO J.A., NEWMAN W., GUTIERREZ-RAMOS J.C.,
RA MACRAY C.R.;
RL J. CLIN. INVEST. 97:604-612(1996).
RN [3]
RP SEQUENCE FROM N.A.
RC TISSUE=SMALL INTESTINE;
RX MEDLINE: 96203964.
RA KITAHARA M., NAKAJIMA T., IMAI T., HARADA S., COMBADIERE C.,
RA TIFFANY H.L., MURPHY P.M., YOSHIE O.;
RL J. BIOL. CHEM. 271:7725-7730(1996).
RN [4]
RP SEQUENCE FROM N.A., SEQUENCE OF 60-65 AND 75-88, AND VARIANTS.
RC TISSUE=FORSKIN;
RX MEDLINE: 96374440.
RA BARTELS J., SCHLUETER C., RICHTER E., NOSO N., KULKE R.,
RA CHRISTOPHERS E., SCHROEDER J.M.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 225:1045-1051(1996).
RN [5]
RP SEQUENCE FROM N.A.
RC TISSUE=PLACENTA;
RX MEDLINE: 97312708.
RA GARCIA-DEPEDA E.A., ROTHENBERG M.E., WEREMOWICZ S., SARAFI M.N.,
RA MORTON C.C., LUSTER A.D.;
RL GENOMICS 41:471-476(1997).
RN [6]
RP SEQUENCE FROM N.A.
RC TISSUE=LUNG;
RX MEDLINE: 97445071.
RA HEIN H., SCHLUETER C., KULKE R., CHRISTOPHERS E., SCHROEDER J.M.,
RA BARTELS J.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 237:537-542(1997).
CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
CC DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
CC FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.
CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
CC -1- INDUCTION: BY TNF-ALPHA, IL-1-ALPHA AND INTERFERON GAMMA.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
CC C-C) (CHEMOKINE CC).
DR EMBL: U46573; G1280141; -
DR EMBL: U34780; G1185440; -
DR EMBL: D49372; G1552241; -
DR EMBL: 269291; E221070; -
DR EMBL: 275668; E251275; -
DR EMBL: 275669; E251258; -
DR EMBL: U46572; G2088509; -
DR EMBL: 292709; E329504; -
DR MIM: 601156; -
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW EOSINOPHIL; CYTOKINE; CHAMOTAXIS; GLYCOPROTEIN; SIGNAL;
KW INFLAMMATORY RESPONSE; POLYMORPHISM.
FT SIGNAL 1 23
FT CHAIN 24 97
FT DISULFID 32 57
FT DISULFID 33 73
FT VARIANT 7 7
FT VARIANT 23 23
FT VARIANT 51 51
FT VARIANT 79 79
SQ SEQUENCE 97 AA; 10732 MW; 6C0F3D98 CRC32;
Query Match 79.2%; Score 80; DB 1; Length 97;
Best Local Similarity 66.7%; Pred. No. 1.59e-05;
Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
Db 71 DICADPKKKVQ 82
1 EICLDPRKQWQ 12
RESULT 21

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ID IL8_CERVO STANDARD; PRT: 101 AA.
AC P46653;
DT 01-NOV-1995 (REL. 32, CREATED)
DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
DE 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8).
GN IL8.
OS CERCOBESUS TORQUATUS ATYS (RED-CROWNED MANGABEY) (SOOTY MANGABEY).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=BLOOD;
RX MEDLINE: 96003435.
RA VILLINGER F.J., BRAR S.S., WAYNE A.E., CHIKKALA N., ANSARI A.A.;
RL J. IMMUNOL. 155:3946-3954(1995).
CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
CC BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
CC RESPONSE TO AN INFLAMMATORY STIMULUS (BY SIMILARITY).
CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
CC C-X-C) (CHEMOKINE CXC).
DR EMBL: U19839; G644796; -
DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
FT SIGNAL 1 22
FT CHAIN 23 101
FT DISULFID 34 61
FT DISULFID 36 77
SQ SEQUENCE 101 AA; 11309 MW; 47F1BF00 CRC32;
Query Match 79.2%; Score 80; DB 1; Length 101;
Best Local Similarity 66.7%; Pred. No. 1.59e-05;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;
Db 75 EICLDPRKQWQ 86
1 EICLDPRKQWQ 12
RESULT 22
ID IL8_MACQU STANDARD; PRT: 101 AA.
AC P51495;
DT 01-OCT-1996 (REL. 34, CREATED)
DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
DT 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 PRECURSOR (IL-8).
GN IL8.
OS MACACA MULATTA (RHESUS MACAQUE), AND MACACA NEMESTRINA (PIG-TAILED
OS MACAQUE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=BLOOD;
RX MEDLINE: 96003435.
RA VILLINGER F.J., BRAR S.S., WAYNE A.E., CHIKKALA N., ANSARI A.A.;
RL J. IMMUNOL. 155:3946-3954(1995).
RN [2]
RP SEQUENCE FROM N.A.
RC SPECIES=M.MULATTA; TISSUE=BLOOD;
RX MEDLINE: 95355132.
RA MINNERLY J.C., BAGANOFF M.P., DEPELIER C.L., KELLER B.T.,
RA RAPP S.R., WIDOMSKI D.L., FRETLAND D.J., BOLANOWSKI M.A.;
RL INFLAMMATION 19:313-331(1995).
CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
CC BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
CC RESPONSE TO AN INFLAMMATORY STIMULUS (BY SIMILARITY).
CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
CC C-X-C) (CHEMOKINE CXC).

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DR EMBL: U19849; G644816; -
 DR EMBL: U19851; G644820; -
 DR EMBL: S78555; G1042228; -
 DR PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
 KM CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 22 BY SIMILARITY.
 FT CHAIN 23 101 INTERLEUKIN-8.
 FT DISULFID 34 61 BY SIMILARITY.
 FT DISULFID 36 77 BY SIMILARITY.
 SQ SEQUENCE 101 AA; 11320 MW; 77D78AA0 CRC32;
 Query Match 79.2%; Score 80; DB 1; Length 101;
 Best Local Similarity 66.7%; Pred. No. 1.59e-05;
 Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;
 Db 75 EICLDPKRWQ 86
 1 EICLDPKRWQ 12
 RESULT 23
 ID MCP2_PIG STANDARD; PRT; 99 AA.
 AC P49873;
 DT 01-OCT-1996 (REL. 34, CREATED)
 DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
 DE CHEMOTACTIC PROTEIN 2)
 GN SCY2 OR MCP2.
 OS SUS SCROFA (PIG).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; ARTIODACTYLA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 95091716.
 RA HOSANG K.K.; KNOKE I.I.; KLAUDINY J.J.; WEMPE F.F.; WUTKE W.W.;
 RA SCHEIT K.K.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 205:148-153(1994).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN
 CC CAN BIND HEPARIN.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER. IN EQUILIBRIUM (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL: 248480; G683719; -
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KM CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.
 FT SIGNAL 1 23 BY SIMILARITY.
 FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 2.
 FT MOD_RES 24 24 PYROLIDONE CARBOXYLIC ACID (BY
 FT MOD_RES 24 24 SIMILARITY)
 FT DISULFID 34 59 BY SIMILARITY.
 FT DISULFID 35 75 BY SIMILARITY.
 SQ SEQUENCE 99 AA; 10903 MW; B7620BCF CRC32;
 Query Match 78.2%; Score 79; DB 1; Length 99;
 Best Local Similarity 66.7%; Pred. No. 2.72e-05;
 Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
 Db 73 EVCADPQKRWQ 84
 1 EICLDPKRWQ 12
 RESULT 24
 ID MCP1_CAVPO STANDARD; PRT; 120 AA.
 AC Q08782;
 DT 01-NOV-1995 (REL. 32, CREATED)
 DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
 DE CHEMOTACTIC PROTEIN 1)
 GN SCY2 OR MCP1.
 OS CAVIA PORCELLUS (GUINEA PIG).

OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-2; TISSUE-SPLEEN;
 RX MEDLINE: 93267104.
 RA YOSHIMURA T.;
 RL J. IMMUNOL. 150:5025-5032(1993).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
 CC NEUTROPHILS.
 CC -1- SUBUNIT: MONOMER OR HOMODIMER. IN EQUILIBRIUM (BY SIMILARITY).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL: U04985; G349821; -
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 KM CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
 FT SIGNAL 1 23 BY SIMILARITY.
 FT CHAIN 24 120 MONOCYTE CHEMOTACTIC PROTEIN 1.
 FT MOD_RES 24 24 PYROLIDONE CARBOXYLIC ACID (BY
 FT MOD_RES 24 24 SIMILARITY)
 FT DISULFID 33 57 BY SIMILARITY.
 FT DISULFID 34 73 BY SIMILARITY.
 FT CARBOHYD 97 97 POTENTIAL.
 SQ SEQUENCE 120 AA; 13741 MW; 22RAD257 CRC32;
 Query Match 78.2%; Score 79; DB 1; Length 120;
 Best Local Similarity 66.7%; Pred. No. 2.72e-05;
 Matches 8; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
 Db 71 EVCADPQKRWQ 82
 1 EICLDPKRWQ 12
 RESULT 25
 ID MCP5_MOUSE STANDARD; PRT; 104 AA.
 AC Q62401;
 DT 01-NOV-1997 (REL. 35, CREATED)
 DT 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 5 PRECURSOR (MCP-5) (MCP-1 RELATED
 DE CHEMOKINE).
 GN SCYAL2 OR MCP5.
 OS MUS MUSCULUS (MOUSE).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; RODENTIA.
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 97079149.
 RA JIA G.-Q.; GONZALEZ J.A.; LLOYD C.; KREMER L.; LU L.; MARTINEZ A.C.;
 RA WERSHIL B.K.; GUTIERREZ-RAMOS J.C.;
 RL J. EXP. MED. 184:1939-1951(1996).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE: 97149438.
 RA SARAFI M.N.; GARCIA-ZEPEDA E.A.; MACLEAN J.A.; CHARO I.F.;
 RA LUSTER A.D.;
 RL J. EXP. MED. 185:99-109(1997).
 CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS EOSINOPHILS, MONOCYTES,
 CC AND LYMPHOCYTES BUT NOT NEUTROPHILS. POTENT MONOCYTE ACTIVE
 CC CHEMOKINE THAT SIGNALS THROUGH CCR2. INVOLVED IN ALLERGIC
 CC INFLAMMATION AND THE HOST RESPONSE TO PATHOGENS AND MAY PLAY A
 CC PIVOTAL ROLE DURING EARLY STAGES OF ALLERGIC LUNG INFLAMMATION.
 CC -1- SUBUNIT: HOMODIMER (BY SIMILARITY).
 CC -1- TISSUE SPECIFICITY: PREDOMINANTLY EXPRESSED IN THE LYMPH NODES AND
 CC THYMUS. ALSO FOUND IN THE SALIVARY GLANDS CONTAINING LYMPH NODES,
 CC BRONCHI, HEART, LUNG, BRAIN, SMALL INTESTINE, KIDNEY AND COLON.
 CC -1- INDUCTION: BY IRRADIATION AND LIPOLYSACCHARIDE (LPS).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL: U50712; G1477582; -
 DR EMBL: U66670; G1881583; -
 DR MGD: MGI:108224; SCYAL2.

DR PROSITE: PS00472; SMALL CYTOKINES CC: 1.
 KM CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
 FT SIGNAL 1 22 BY SIMILARITY.
 FT CHAIN 23 104 MONOCYTE CHEMOTACTIC PROTEIN 5.
 FT DISULFID 33 58 BY SIMILARITY.
 FT DISULFID 34 74 BY SIMILARITY.
 SQ SEQUENCE 104 AA; 11659 MW; 08FA6C35 CRC32;
 Query Match Score 77; DB 1; Length 104;
 Best Local Similarity 72.7%; Pred. No. 7.91e-05;
 Matches 8; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
 Db 72 EICADPKKRW 82
 QY 1 EICLDPKRW 11
 RESULT 26
 ID EOTA_CAVPO STANDARD; PRT; 96 AA.
 AC P80325;
 DT 01-JUN-1994 (REL. 29, CREATED)
 DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
 GN SCY11.
 OS CAVIA PORCELLUS (GUINEA PIG).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; RODENTIA.
 RN (1)
 RP SEQUENCE FROM N.A.
 RC TISSUE-LUNG;
 RX MEDLINE: 95173589.
 RA ROTHENBERG M.E., LUSTER A.D., LILLY C.M., DRAZEN J.M., LEDER P.;
 RL J. EXP. MED. 181:1211-1216(1995).
 RN (2)
 RX SEQUENCE FROM N.A.
 RX MEDLINE: 95091818.
 RA JOSE P.J., ADCOCK I.M., GRIFFITHS-JOHNSON D.A., BERKMAN N.,
 RA WELLS T.C., WILLIAMS T.J., POWER C.A.;
 RA BIOCHEM. BIOPHYS. RES. COMMUN. 205:788-794(1994).
 RN (3)
 RP SEQUENCE OF 24-96.
 RC STRAIN-HARTLEY; TISSUE-LUNG;
 RX MEDLINE: 94157409.
 RA JOSE P.J., GRIFFITHS-JOHNSON D.A., COLLINS P.D., WALSH D.T.,
 RA MOOBLER R., TOTTY N.F., TRUNG O., HSUAN J.J., WILLIAMS T.J.;
 RL J. EXP. MED. 179:881-887(1994).
 CC -1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
 DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
 FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.
 CC -1- SUBCELLULAR LOCATION: EXTRACELLULAR.
 CC -1- TISSUE SPECIFICITY: LUNG.
 CC -1- PTM: O-GLYCOSYLATED (PROBABLE).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 C-C) (CHEMOKINE CC).
 CC EMBL: U18941; G687656; -;
 DR EMBL: X17603; G602552; -;
 DR HSSP: P13500; IMCA.
 DR PROSITE: PS00472; SMALL CYTOKINES CC: 1.
 KM EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
 KW INFLAMMATORY RESPONSE
 FT SIGNAL 1 23
 FT CHAIN 24 96 EOTAXIN.
 FT DISULFID 31 56 BY SIMILARITY.
 FT DISULFID 32 72 BY SIMILARITY.
 FT CARBOHYD 93 93 POTENTIAL.
 FT CONFLICT 88 88 D -> G (IN REF. 2).
 SQ SEQUENCE 96 AA; 10753 MW; DD28C7E5 CRC32;
 Query Match Score 75; DB 1; Length 96;
 Best Local Similarity 72.7%; Pred. No. 2.27e-04;
 Matches 8; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Db 71 ICADPKKRW 81
 QY 2 EICLDPKRW 12
 RESULT 27
 ID M1A_RAT STANDARD; PRT; 92 AA.
 AC P50229;
 DT 01-OCT-1996 (REL. 34, CREATED)
 DT 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
 DT 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
 DE MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR (MIP-1-ALPHA).
 GN SCY33 OR MIP1A.
 OS RATTUS NORVEGICUS (RAT).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
 OC EUTHERIA; RODENTIA.
 RN (1)
 RP SEQUENCE FROM N.A.
 RC STRAIN-CD-1; TISSUE-LUNG;
 RX MEDLINE: 95298037.
 RA SHI M.M., GODLESKI J.J., PAULASKIS J.D.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 211:289-295(1995).
 RN (2)
 RP SEQUENCE FROM N.A.
 RC STRAIN-LONG EVANS; TISSUE-LUNG;
 RX MEDLINE: 95238980.
 RA SHANLEY T.P., SCHMAL H., FRIEDL H.P., JONES M.L., WARD P.A.;
 RL J. IMMUNOL. 154:4793-4802(1995).
 RN (3)
 RP SEQUENCE OF 24-57.
 RC STRAIN-WISTAR;
 RX MEDLINE: 96183056.
 RA NAKAGAWA H., SHIOYA S., TAKANO K., SHIBATA F., KATO H.;
 RL BIOCHEM. BIOPHYS. RES. COMMUN. 220:945-948(1996).
 CC -1- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.
 BASOPHILS, AND LYMPHOCYTES. REQUIRED FOR LONG TNF-ALPHA
 PRODUCTION, NEUTROPHIL RECRUITMENT AND SUBSEQUENT LUNG INJURY AND
 MAY FUNCTION AS AN AUTOCRINE MEDIATOR FOR THE MACROPHAGE
 PRODUCTION OF TNF-ALPHA WHICH IN TURN UP-REGULATES VASCULAR
 ADHESION MOLECULES REQUIRED FOR NEUTROPHIL INFLUX. THIS PROTEIN
 BINDS HEPARIN.
 CC -1- INDUCTION: BY LIPOPOLYSACCHARIDE (LPS).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 C-C) (CHEMOKINE CC).
 CC EMBL: U22414; G790633; -;
 DR EMBL: U06435; G459150; -;
 DR PROSITE: PS00472; SMALL CYTOKINES CC: 1.
 KM CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL; HEPARIN-BINDING.
 FT SIGNAL 1 23
 FT CHAIN 24 92 MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA.
 FT DISULFID 34 57 BY SIMILARITY.
 FT DISULFID 35 73 BY SIMILARITY.
 FT CONFLICT 6 6 A -> T (IN REF. 2).
 FT CONFLICT 57 57 C -> W (IN REF. 2 AND 3).
 SQ SEQUENCE 92 AA; 10335 MW; F48CF89F CRC32;
 Query Match Score 73.3%; DB 1; Length 92;
 Best Local Similarity 58.3%; Pred. No. 3.84e-04;
 Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;
 Db 71 QICADPKRW 82
 QY 1 EICLDPKRW 12
 RESULT 28
 ID MCPB_BOVIN STANDARD; PRT; 74 AA.
 AC P80343;
 DT 01-FEB-1995 (REL. 31, CREATED)
 DT 01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
 DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
 DE MONOCYTE CHEMOTACTIC PROTEIN 1B (MCP-1B) (FRAGMENT).

OS BOS TAURUS (BOVINE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; ARTIODACTYLA.
RN [1]
RP SEQUENCE.
RX TISSUE-KIDNEY;
MEDLINE: 9503474.
RA PROOST P., WUTIS A., LENAERTS J.-P., VAN DAMME J.;
RL BIOCHEMISTRY 33:13406-13412(1994).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR ACTIVITY. ALSO INDUCES
THE RELEASE OF GELATINASE B. THIS PROTEIN CAN BIND HEPARIN.
CC -1- PTM. THE N-TERMINAL IS BLOCKED.
CC -1- SIMILARITY: BELONGS TO THE INTERCINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; HEPARIN-BINDING.
FT NON_TER 1 1
FT DISULFID 9 34 BY SIMILARITY.
FT DISULFID 10 50 BY SIMILARITY.
SQ SEQUENCE 74 AA; 8360 MW; 66172F08 CRC32;
Query Match 72.3%; Score 73; DB 1; Length 74;
Best Local Similarity 58.3%; Pred. No. 6,45e-04;
Matches 7; Conservative 2; Mismatches 3; Indels 0; Gaps 0;
Db 48 EICAEPEKXXVQ 59
|:|:|:|:|:
QY 1 EICLDPKQKMIQ 12
RESULT 29
ID MCP2_HUMAN STANDARD; PRT; 99 AA.
AC P80075; P78388;
DT 01-DEC-1992 (REL. 24, CREATED)
DI 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
DI 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
CHEMOTACTIC PROTEIN 2) (HC14).
GN SCY18 OR SCY10 OR MCP2.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A., AND VARIANT GLN-69.
RA VAN COILLIE E., FITTEN P., NOMIYAMA H., SAKAKI Y., MIURA R., YOSHIE O.,
VAN DAMME J., OPDENAKKER G.;
RL GENOMICS 40:323-331(1997).
RN [2]
RP SEQUENCE FROM N.A., AND VARIANT GLN-69.
RC TISSUE-BONE MARROW;
RX MEDLINE: 97224420.
RA VAN COILLIE E., FROYEN F., NOMIYAMA H., MIURA R., FITTEN P.,
VAN AELST I., VAN DAMME J., OPDENAKKER G.;
RL BIOCHEM. BIOPHYS. RES. COMMUN. 231:726-730(1997).
RN [3]
RP SEQUENCE OF 23-99 FROM N.A.
RX MEDLINE: 91207938.
RA CHANG H.-C., HSU F., FREEMAN G.J., GRIFFIN J.D., REINHERZ E.L.;
RL INT. IMMUNOL. 1:388-399(1989).
RN [4]
RP SEQUENCE OF 26-99.
RC TISSUE-OSTEOSARCOMA;
RX MEDLINE: 92308855.
RA VAN DAMME J., PROOST P., LENAERTS J.-P., OPDENAKKER G.;
RL J. EXP. MED. 176:59-65(1992).
RN [5]
RP SUBUNIT.
RA MEDLINE: 97053697.
RA KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.;
RL FEBS LETT. 395:277-282(1996).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCYTES,

CC BASOPHILS AND EOSINOPHILS. MAY PLAY A ROLE IN NEOPLASIA AND
INFLAMMATORY HOST RESPONSES. THIS PROTEIN CAN BIND HEPARIN.
CC -1- SUBUNIT: MONOMER OR HOMODIMER, IN EQUILIBRIUM.
CC -1- TISSUE SPECIFICITY: HIGHEST EXPRESSION FOUND IN THE SMALL
INTESTINE AND PERIPHERAL BLOOD CELLS. INTERMEDIATE LEVELS SEEN IN
THE HEART, PLACENTA, LUNG, SKELETAL MUSCLE, THYMUS, COLON, OVARY,
SPINAL CORD AND PANCREAS. LOW LEVELS SEEN IN THE BRAIN, LIVER,
SPLEEN AND PROSTATE.
CC -1- INDUCTION: BY INTERFERON GAMMA, MITOGENS AND INTERLEUKIN-1.
CC -1- SIMILARITY: BELONGS TO THE INTERCINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
DR EMBL: X99886; E279930; ALT_INIT.
DR HSSP: F13500; IMCA.
DR MIM: 602283;
DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
KW CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE;
KM POLYMORPHISM.
FT SIGNAL 1 23 PROBABLE.
FT CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 2.
FT MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID.
FT DISULFID 34 59 BY SIMILARITY.
FT DISULFID 35 75 BY SIMILARITY.
FT VARIANT 69 69 K -> O.
SQ SEQUENCE 99 AA; 11246 MW; 5DD5C20 CRC32;
Query Match 72.3%; Score 73; DB 1; Length 99;
Best Local Similarity 50.0%; Pred. No. 6,45e-04;
Matches 6; Conservative 5; Mismatches 1; Indels 0; Gaps 0;
Db 73 EVCADPKERWVR 84
|:|:|:|:|:
QY 1 EICLDPKQKMIQ 12
RESULT 30
ID MIP4_HUMAN STANDARD; PRT; 89 AA.
AC P55774;
DT 01-NOV-1997 (REL. 35, CREATED)
DI 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
DI 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DE MACROPHAGE INFLAMMATORY PROTEIN 4 PRECURSOR (MIP-4) (PULMONARY AND
DE ACTIVATED MACROPHAGE ASSOCIATED CC CHEMOKINE 1) (MAC-1).
GN SCY18 OR MIP4.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
OC EUTHERIA; PRIMATES.
RN [1]
RP SEQUENCE FROM N.A.
RA LI H., RUBEN S.;
RL PATENT NUMBER US5504003.
RN [2]
RP SEQUENCE FROM N.A., AND PARTIAL SEQUENCE.
RC TISSUE-AORTA, AND LUNG;
RX MEDLINE: 97376836.
RA HIESHIMA K., IMAI T., BABA M., SHODAI K., ISHIZUKA K.,
NAKAGAWA T., TSUBOTA J., TAKEYA M., SAKAKI Y., TAKATSUKI K.,
MIURA R., OPDENAKKER G., VAN DAMME J., YOSHIE O., NOMIYAMA H.;
RL J. IMMUNOL. 159:1140-1149(1997).
RN [3]
RP SEQUENCE FROM N.A.
RA KODELJA V., MOELLER C., POLITZ O., HAKIV N., ORFANOS C.E., GOERDT S.;
RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [4]
RP DISCUSSION OF SEQUENCE.
RX MEDLINE: 97275308.
RA WELLS T.N.C., PETTSCH M.C.;
RL J. LEUKOC. BIOL. 61:545-550(1997).
CC -1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS LYMPHOCYTES BUT NOT
MONOCYTES OR GRANULOCYTES. MAY BE INVOLVED IN B CELL MIGRATION
INTO B CELL FOLLICLES IN LYMPH NODES.
CC -1- TISSUE SPECIFICITY: EXPRESSED AT HIGH LEVELS IN THE LUNG. A LOWER

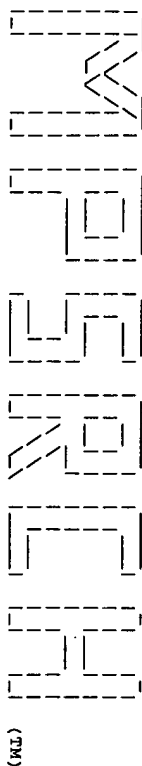
CC LEVEL EXPRESSION IS SEEN IN LYMPHOID TISSUES SUCH AS LYMPH NODES,
 CC THYMUS AND APPENDIX.
 CC -1- INDUCTION: BY LIPOLYSACCHARIDE (LPS).
 CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
 CC C-C) (CHEMOKINE CC).
 DR EMBL: AB000221: D1022520; -.
 DR EMBL: Y13710: E321838; -.
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 DR CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 KW CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
 FT SIGNAL 1 20
 FT CHAIN 21 89 MACROPHAGE INFLAMMATORY PROTEIN 4.
 FT DISULEID 30 54 BY SIMILARITY.
 FT DISULEID 31 70 BY SIMILARITY.
 SQ SEQUENCE 89 AA: 9849 MW: 032NA3DC CRC32;

Query Match 71.3%; Score 72; DB 1; Length 89;
 Best Local Similarity 58.3%; Pred. No. 1.08e-03;
 Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 68 QICADPNKKRWQ 79
 :|||:|:|:|:|
 QY 1 EICLDPKRWIQ 12

Search completed: Thu Apr 1 07:44:22 1999
 Job time : 8 secs.

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Mparch_pp protein - protein database search, using Smith-Waterman algorithm

Run on: Thu Apr 1 07:44:40 1999; Maspar time 4.93 Seconds

Tabular output not generated. 134.180 Million cell updates/sec

Title: >US-08-927-939-14
Description: (1-12) from US08927939.pep
Perfect Score: 101
Sequence: 1 EICDPKQKWTQ 12

Scoring table:
PAM 150
GAP 15

Searched: 180763 segs, 55169189 residues

Post-processing: Minimum Match 0%
Listing first 100 summaries

Database:

spreml8
1:sp-archaea 2:sp-bacteria 3:sp-fungi 4:sp-human
5:sp-invertebrate 6:sp-mammal 7:sp-mhc 8:sp-organella
9:sp-phage 10:sp-plant 11:sp-rodent 12:sp-unclassified
13:sp-vertebrate 14:sp-virus

Statistics: Mean 25.755; Variance 33.708; scale 0.764

Fred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description	Pred. No.
1	77	76.2	97	6	062812	INTERLEUKIN-8 (FRAGMEN	1.78e-04
2	72	71.3	97	13	057411	LIMPHOTACTIN PRECURSOR	2.39e-03
3	72	71.3	395	11	035188	NEUTROFILACTIN.	2.39e-03
4	72	71.3	395	11	035933	FRACTALKINE.	2.39e-03
5	69	68.3	109	11	055038	B LYMPHOCYTE CHEMOATTR	1.09e-02
6	68	67.3	119	4	000175	MPF-2.	1.79e-01
7	67	66.3	97	11	089093	CC CHEMOKINE ST38 PREC	2.94e-02
8	67	66.3	134	4	000585	BETA CHEMOKINE EXODUS-	2.94e-02
9	66	65.3	92	11	088430	CC CHEMOKINE EXODUS-	4.81e-02
10	65	64.4	104	13	073912	K60 PROTEIN PRECURSOR.	7.83e-02
11	63	62.4	80	4	014745	LD78 ALPHA BETA PRECUR	2.05e-01
12	63	62.4	95	4	099664	CHEMOKINE EXODUS.	2.05e-01
13	63	62.4	96	11	097884	CC CHEMOKINE EXODUS.	2.05e-01
14	63	62.4	108	4	043927	CXC CHEMOKINE PRECURSO	2.05e-01
15	63	62.4	120	4	013467	IL-10-1 INDUCIBLE CHEMOK	2.05e-01
16	61	60.4	101	13	093442	LP2A-1 PROTEIN PRECURS	5.27e-01
17	60	59.4	101	13	093238	CC CHEMOKINE-1.	8.39e-01
18	60	59.4	584	5	002426	SMALL. HOMOLOG.	1.33e+00
19	59	58.4	91	4	043646	RANTES PRECURSOR.	1.33e+00
20	59	58.4	201	11	070357	PLASMA RETINOL-BINDING	1.33e+00

21	58	57.4	95	14	098158	ONE K6.	2.10e+00
22	58	57.4	203	14	067634	ECO Q PROTEIN (FRAGMEN	2.10e+00
23	58	57.4	397	4	078423	CX3C CHEMOKINE PRECURS	2.10e+00
24	58	57.4	535	10	082387	POTATIVE CELL DIVISION	3.29e+00
25	57	56.4	93	4	000626	MACROPHAGE-DERIVED CHE	3.29e+00
26	57	56.4	133	11	009002	SMALL. INDUCIBLE CYTOK	3.29e+00
27	57	56.4	133	11	009006	BETA CHEMOKINE EXODUS-	3.29e+00
28	57	56.4	331	5	017348	HA2K1.2 PROTEIN.	3.29e+00
29	57	56.4	760	3	099126	CHITIN SYNTHETASE I.	3.29e+00
30	57	56.4	806	13	093599	TRANSCRIPTION FACTOR.	3.29e+00
31	57	56.4	899	4	013527	PROHORMONE CONVERTASE	3.29e+00
32	57	56.4	915	4	092824	PG6A PROTEASE.	3.29e+00
33	56	55.4	158	10	064975	POTATIVE DISEASE RESIS	5.14e+00
34	56	55.4	281	3	006667	CHROMOSOME IV COSMID 9	5.14e+00
35	56	55.4	1130	14	088282	ENVELOPE PROTEIN.	5.14e+00
36	55	54.5	148	14	082745	(STRAIN LMYRT 60-1	7.98e+00
37	55	54.5	328	2	025855	HYPOTHETICAL 37.2 KD P	7.98e+00
38	55	54.5	334	7	030770	MHC CLASS I ALLELE SHN	7.98e+00
39	55	54.5	749	13	093598	TRANSCRIPTION FACTOR.	7.98e+00
40	55	54.5	947	4	060334	KRAA0593 PROTEIN (FRAG	7.98e+00
41	55	54.5	1186	14	055767	POTATIVE TYROSINE PROT	7.98e+00
42	55	54.5	188	5	045136	COSD2.8 PROTEIN.	1.23e+01
43	54	53.5	192	10	023536	RESISTANCE GENE HOMOLO	1.23e+01
44	54	53.5	230	14	067245	NS1.	1.23e+01
45	54	53.5	282	2	096965	2-HYDROXY-6-OXO-7-METH	1.23e+01
46	54	53.5	363	7	095394	MHC CLASS I A.	1.23e+01
47	54	53.5	363	7	030870	MHC CLASS I A.	1.23e+01
48	54	53.5	399	14	068409	ORF U154.	1.23e+01
49	54	53.5	449	3	001762	CELLULASE.	1.23e+01
50	54	53.5	517	2	050018	COSMID B1764.	1.23e+01
51	54	53.5	629	5	091819	RNA POLYMERASE II LARG	1.23e+01
52	54	53.5	710	5	019239	HYPOTHETICAL PROTEIN F	1.23e+01
53	54	53.5	770	5	060999	CUIA.	1.23e+01
54	54	53.5	862	4	096655	IT-12 RECEPTOR BETA2.	1.23e+01
55	54	53.5	1361	10	004264	DOWNY MILDEN RESISTANC	1.23e+01
56	54	53.5	2919	14	085431	RNA POLYMERASE.	1.23e+01
57	54	53.5	3587	2	030408	TYROCIDINE SYNTHETASE	1.23e+01
58	54	53.5	145	2	074671	HYPOTHETICAL 16.6 KD P	1.89e+01
59	53	52.5	118	2	031562	YF11 PROTEIN.	1.89e+01
60	53	52.5	209	1	029680	CONSERVED HYPOTHETICAL	1.89e+01
61	53	52.5	227	14	009683	NONSTRUCTURAL PROTEIN	1.89e+01
62	53	52.5	230	14	092560	NONSTRUCTURAL PROTEIN	1.89e+01
63	53	52.5	230	14	062807	NONSTRUCTURAL PROTEIN	1.89e+01
64	53	52.5	230	14	067261	NONSTRUCTURAL PROTEIN	1.89e+01
65	53	52.5	522	5	061090	SERINE RICH PROTEIN HO	1.89e+01
66	53	52.5	546	5	017245	REP PROTEIN (REPLICATI	1.89e+01
67	53	52.5	642	2	009029	HYPOTHETICAL 55.2 KD P	2.89e+01
68	53	52.5	982	5	025799	HYPOTHETICAL 53.8 KD P	2.89e+01
69	53	52.5	475	4	060646	1-AMINOCYCLOPROPANE-1-	2.89e+01
70	53	52.5	477	10	094005	1-AMINOCYCLOPROPANE 1-	2.89e+01
71	53	52.5	575	5	024653	HYPOTHETICAL 65.3 KD P	2.89e+01
72	53	52.5	583	3	062146	PO9B12.3	2.89e+01
73	52	51.5	677	2	051544	PHOSPHATE TRANSPORT SY	2.89e+01
74	52	51.5	768	11	060695	RAL GUANINE NUCLEOTIDE	2.89e+01
75	52	51.5	1124	4	060329	KRAA0587 PROTEIN.	2.89e+01
76	52	51.5	1234	5	091309	CODED FOR BY C. ELEGAN	2.89e+01
77	52	51.5	1813	6	062653	SUCRASE-ISOMALTAZE.	2.89e+01
78	52	51.5	2276	4	075050	KRAA0462 PROTEIN (FRAG	2.89e+01
79	52	51.5	95	2	070808	ATP BINDING PROTEIN (F	4.38e+01
80	51	50.5	96	13	090825	CTOKINE.	4.38e+01

94 51 50.5 167 7 046767 MHC CLASS I HEAVY CHAI 4.38e+01
95 51 50.5 388 1 051797 ACAB PROTEIN. 4.38e+01
96 51 50.5 451 1 058554 HYPOTHETICAL PROTEIN M 4.38e+01
97 51 50.5 478 5 061122 SEVERIN KINASE. 4.38e+01
98 51 50.5 955 5 045297 C38C6.1. 4.38e+01
99 51 50.5 1038 10 023532 RESISTANCE GENE. 4.38e+01
100 51 50.5 1355 5 016732 K09F6.6 PROTEIN. 4.38e+01

ALIGNMENTS

RESULT 1
ID 062812 PRELIMINARY; PRT; 97 AA.
AC 062812.
DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
DT 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
DE INTERLEUKIN-8 (FRAGMENT).
GN IL-8.
OS EQUUS CABALLUS (HORSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
OC PERISSODACTYLA; EQUIDAE; EQUUS.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-BRONCHOALVEOLAR TISSUE;
RA FRANCHINI M.;
RL SUBMITTED (APR-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AF062377; G3126973; -.
FT NON_TER 97
SQ SEQUENCE 97 AA; 10742 MW; 003966BF CRC32;

Query Match 76.2%; Score 77; DB 6; Length 97;
Best Local Similarity 58.3%; Pred. No. 1.78e-04;
Matches 7; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

DB 75 EYCLNPHRKWQ 86
QY 1 EICLDPKQKMIQ 12

RESULT 2
ID 057411 PRELIMINARY; PRT; 97 AA.
AC 057411.
DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
DT 01-JUN-1998 (TREMBLREL. 06, LAST ANNOTATION UPDATE)
DE LYMPHOTACTIN PRECURSOR.
OS GALLUS GALLUS (CHICKEN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ARCHOSAURIA; AVES;
OC NEOGNATHAE; GALLIFORMES; PHASIANIDAE; PHASIANINAE; GALLUS.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-SPLEEN;
RA ROSSI D.L., BAZAN J.F., ZLOTNIK A.;
PL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AF006742; G2827882; -.
FT SIGNAL. 1 24 POTENTIAL.
FT CHAIN 25 97 LYMPHOTACTIN.
SQ SEQUENCE 97 AA; 11131 MW; 3290101C CRC32;

Query Match 71.3%; Score 72; DB 13; Length 97;
Best Local Similarity 63.6%; Pred. No. 2.39e-03;
Matches 7; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

DB 72 ICVHPEOKWQ 82
QY 2 ICLDPKQKMIQ 12

RESULT 3
ID 035188 PRELIMINARY; PRT; 395 AA.
AC 035188;

DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE NEUROFACIN.
GN SCYDL.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCIROGNATHI; MORIDAE; MORINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 97320499.
RA PAN Y., CLARE L., HONG Z., DOLICH S., DEEDS J., GONZALO J., VATH J.,
RA GOSSELIN M., MA J., DUSSAULT B., WOLFF B., ALBERIN A., CULPEPPER J.,
RT "Neurofacin, a membrane-anchored chemokine upregulated in brain
inflammation."
RL NATURE 387:611-617(1997).
DR EMBL: AF010586; G2317698; -.
DR MGD: MGI:1097153; SCYDL.
DR PFAM: PF00048; 118; 1.
SQ SEQUENCE 395 AA; 42098 MW; E3CD0612 CRC32;

Query Match 71.3%; Score 72; DB 11; Length 395;
Best Local Similarity 63.6%; Pred. No. 2.39e-03;
Matches 7; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

DB 73 FCADPKERWQ 83
QY 2 ICLDPKQKMIQ 12

RESULT 4
ID 035933 PRELIMINARY; PRT; 395 AA.
AC 035933.
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE FRACTALKINE.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
OC SCIROGNATHI; MURIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-BALB/C; TISSUE-BRAIN;
RA ROSSI D., HARDMAN G., COPELAND N., GILBERT D.J., JENKINS N.,
RA ZLOTNIK A., BAZAN J.F.;
RL SUBMITTED (MAR-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: U92565; G2459677; -.
DR PFAM: PF00048; 118; 1.
SQ SEQUENCE 395 AA; 42040 MW; 3997A113 CRC32;

Query Match 71.3%; Score 72; DB 11; Length 395;
Best Local Similarity 63.6%; Pred. No. 2.39e-03;
Matches 7; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

DB 73 FCADPKERWQ 83
QY 2 ICLDPKQKMIQ 12

RESULT 5
ID 055038 PRELIMINARY; PRT; 109 AA.
AC 055038.
DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
DT 01-JUN-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE B LYMPHOCYTE CHEMOTRACTANT BLC.
OS MUS MUSCULUS (MOUSE).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; RODENTIA;
OC SCIROGNATHI; MURIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-C57BL/6J;

RA SIDERAS P.:
 RT Activated murine B lymphocytes and dendritic cells produce a novel
 RT CC chemokine which acts selectively on activated T cells.";
 RL J. EXP. MED. 188:451-463(1998).
 DR EMBL: AF052505; G3378116; -;
 SQ SEQUENCE 92 AA; 10302 MW; BC7219A0 CRC32;

Query Match 65.3%; Score 66; DB 11; Length 92;
 Best Local Similarity 54.5%; Pred. No. 4.81e-02;
 Matches 6; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 74 DICADPROVWV 84
 :|||:|:|:
 QY 1 EICLDPKOKWI 11

RESULT 10
 ID 073912 PRELIMINARY: PRT: 104 AA.
 AC 073912:
 DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
 DT 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
 DE 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
 DE K60 PROTEIN PRECURSOR.
 GN K60.
 OS GALLUS GALLUS (CHICKEN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ARCHOSAURIA; AVES;
 NC NEOGNATHAE; GALLIFORMES; PHASIANIDAE; PHASIANINAE; GALLUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-MACROPHAGE LIKE;
 RA SICK C.;
 RL SUBMITTED (AUG-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: Y14971; E1295103; -;
 KW SIGNAL.
 FT CHAIN 21 104 POTENTIAL.
 FT SIGNAL. K60 PROTEIN.
 SQ SEQUENCE 104 AA; 11199 MW; 40C2EF8A CRC32;

Query Match 64.4%; Score 65; DB 13; Length 104;
 Best Local Similarity 54.5%; Pred. No. 7.83e-02;
 Matches 6; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

Db 75 EYCLDPTAPV 85
 :|||:|:|:
 QY 1 EICLDPKOKWI 11

RESULT 11
 ID 014745 PRELIMINARY: PRT: 80 AA.
 AC 014745:
 DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
 DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE LD78 ALPHA BETA PRECURSOR (FRAGMENT).
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
 CC CATARRHINI; HOMINIDAE; HOMO.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-BRAIN;
 RA ISHIZUKA K., IGATA-YI R., NARUSE K., NAKASHIMA H., OHUCHI K.,
 RA KATSURAGI S., KIN Y., OHMOTO Y., NOMIYAMA H., ITO M., MIURA R.,
 RA MIYAKAWA T.;
 RL SUBMITTED (AUG-1995) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL: D63785; G961440; -;
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 DR PFAM: PF00048; I18; 1.
 KW SIGNAL.
 FT NON_TER 1 1
 FT SIGNAL. <1 16 POTENTIAL.
 FT CHAIN 17 >80 LD78 ALPHA BETA.
 FT NON_TER 80 80
 SQ SEQUENCE 80 AA; 8857 MW; 3F87F1C6 CRC32;

Query Match 62.4%; Score 63; DB 4; Length 80;
 Best Local Similarity 41.7%; Pred. No. 2.05e-01;
 Matches 5; Conservative 4; Mismatches 3; Indels 0; Gaps 0;

Db 65 OYCADSEEMVQ 76
 :|||:|:|:
 QY 1 EICLDPKOKWIQ 12

RESULT 12
 ID 09664 PRELIMINARY: PRT: 95 AA.
 AC 09664:
 DT 01-MAY-1997 (TREMBLREL. 03, CREATED)
 DT 01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE CHEMOKINE EXODUS.
 OS HOMO SAPIENS (HUMAN).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
 CC CATARRHINI; HOMINIDAE; HOMO.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-PANCREAS;
 RX MEDLINE: 97275143.
 RA BROMAS R., GRAY P.W., CHANTRY D., GODISKA R., KRATHWOHL M., FIFE K.,
 RA BELL G.I., TAKEDA J., ARONICA S., GORDON M., COOPER S., BROKMEYER H.E.,
 RA KLEMSZ M.J.;
 RT Cloning and characterization of exodus, a novel beta-chemokine.";
 RL BLOOD 89:3315-3322(1997).
 DR EMBL: U64197; G1778717; -;
 DR PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
 DR PFAM: PF00048; I18; 1.
 SQ SEQUENCE 95 AA; 10691 MW; 1526B4C0 CRC32;

Query Match 62.4%; Score 63; DB 4; Length 95;
 Best Local Similarity 50.0%; Pred. No. 2.05e-01;
 Matches 5; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 72 VCANPKOTV 81
 :|||:|:|:
 QY 2 ICLDPKOKWI 11

RESULT 13
 ID P97884 PRELIMINARY: PRT: 96 AA.
 AC P97884:
 DT 01-MAY-1997 (TREMBLREL. 03, CREATED)
 DT 01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
 DE CC CHEMOKINE EXODUS.
 OS RATTUS NORVEGICUS (RAT).
 OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; RODENTIA;
 CC SCIROGNATHI; MURIDAE; MURINAE; RATTUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN-SPRAGUE-DAWLEY;
 RA KELLER G.S., MACIEJEWSKI-LENOIR D., LEE E.D., MAKI R.A.;
 RL SUBMITTED (FEB-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [2]
 RP SEQUENCE FROM N.A.
 RC STRAIN-FISHER 344; TISSUE-BRAIN;
 RA UTANS-SCHNEITZ U., LOREZ H., KLINKERT W.E.F., DA SILVA J.,
 RA LESSLAUDER W.;
 RT A novel rat CC chemokine, identified by targeted differential
 RT display, is upregulated in brain inflammation.";
 RL J. NEUROIMMUNOL. 0:0-0(1998).
 DR EMBL: U90447; G1899246; -;
 DR EMBL: AF053312; G3531817; -;
 DR PFAM: PF00048; I18; 1.
 KW SIGNAL.
 SQ SEQUENCE 96 AA; 10875 MW; 3FC09DD8 CRC32;

Query Match 62.4%; Score 63; DB 11; Length 96;

Best Local Similarity 60.0%; Pred. No. 2.05e-01;
Matches 6; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 73 VCADPQKQWV 82
:|||||:
QY 2 ICLDPKQKWI 11

RESULT 14
ID 043927; PRELIMINARY; PRT; 109 AA.
AC 043927;
DT 01-JUN-1998 (TREMBLREL. 06, CREATED)
DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CXC CHEMOKINE PRECURSOR.
GN BCA-1.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE; 98130629.
RA LEGIER D.F., LOETSCHER M., STUBER ROOS R., CLARK-LEWIS I.,
RA BAGGIOLINI M., MOSER B.;
RT "B cell-attracting chemokine 1, a human CXC chemokine expressed in
RT lymphoid tissues, selectively attracts B lymphocytes via BLR1/CXCR5.";
RL J. Exp. Med. 187:655-660(1998).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE; 98146056.
RA GUNN M.D., NGO V.N., ANSEL K.M., EKLAND E.H., CYSTER J.G.,
RA WILLIAMS L.T.;
RT "A B-cell-homing chemokine made in lymphoid follicles activates
RT Burkitt's lymphoma receptor-1.";
RL NATURE 391:799-803(1998).
RN [3]
RP SEQUENCE FROM N.A.
RA NAOLITANO M., SPINETTI G., GAETANO C., CAPOGROSSI C.M.;
RL SUBMITTED (OCT-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; AJ002211; E1249325; -;
DR EMBL; AF044197; G2911376; -;
DR EMBL; AF029894; G3169814; -;
KW SIGNAL.
FT SIGNAL. 1 22 POTENTIAL.
FT CHAIN 23 109 POTENTIAL.
SQ SEQUENCE 109 AA; 12664 MW; BE5A46BC CRC32;

Query Match 62.4%; Score 63; DB 4; Length 109;
Best Local Similarity 54.5%; Pred. No. 2.05e-01;

Matches 6; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

Db 75 VCVDPQAEWQ 85
:|||||:
QY 2 ICLDPKQKWI 12

RESULT 15
ID 015467; PRELIMINARY; PRT; 120 AA.
AC 015467;
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE IL-10-INDUCIBLE CHEMOKINE.
GN ILINCK OR SCYLA16.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RA HEDRICK J.A., GORMAN D., ZLOTNIK A.;
RL SUBMITTED (NOV-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [2]
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
SQ SEQUENCE FROM N.A.

RC TISSUE-LIVER;
RA SHODDAI K., HIESHIMA K., FUKUDA S., ITO M., MIURA R., IMAI T.,
RA YOSHIE O., NOMIYAMA H.;
RL BIOCHIM. BIOPHYS. ACTA 0:0-0(1998).
RN [3]
RP SEQUENCE FROM N.A.
RA NOMIYAMA H.;
RT "Structure of a region of 181 kb containing five CC chemokine genes.";
RL SUBMITTED (AUG-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [4]
RP SEQUENCE FROM N.A.
RX MEDLINE; 98308096.
RA YOUN B.S., ZHANG S., BROOMEYER H.E., ANTOL K., FRASER M.J. JR.,
RA HANOC G., KWON B.S.;
RT "Isolation and characterization of LMC, a novel lymphocyte and
RT monocyte chemoattractant human CC chemokine, with myelosuppressive
RT activity.";
RL BIOCHEM. BIOPHYS. RES. COMMUN. 247:217-222(1998).
DR EMBL; U91746; G2581781; -;
DR EMBL; AB007454; D1024963; -;
DR EMBL; AF088219; G3719365; -;
DR EMBL; AF055467; G3395776; -;
DR PFAM; PF00048; 118; 1.
KW SIGNAL.
SQ SEQUENCE 120 AA; 13600 MW; A079DF66 CRC32;

Query Match 62.4%; Score 63; DB 4; Length 120;
Best Local Similarity 41.7%; Pred. No. 2.05e-01;

Matches 5; Conservative 5; Mismatches 2; Indels 0; Gaps 0;

Db 74 EYCTNPNDWDVQ 85
:|:|:|:|:
QY 1 EICLDPKQKWI 12

RESULT 16
ID 093442; PRELIMINARY; PRT; 101 AA.
AC 093442;
DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE LFCA-1 PROTEIN PRECURSOR.
OS LAMPETRA FLUVATILIS (RIVER LAMPREY).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; CEPHALASPIDOMORPHI;
OC PETROMYZONTIFORMES; PETROMYZONTIDAE; LAMPETRA.
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE-LEUKOCYTES;
RA NAWKSHIN A.M., MECHETTINA L.V., ALABYEV B.Y., TARANIN A.V.;
RT "Identification of the interleukin 8 homologue in lamprey (Lampetra
RT fluvatilis): early evolutionary divergence of chemokines.";
RL SUBMITTED (JUL-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL; AJ231072; E1313821; -;
KW SIGNAL.
FT SIGNAL. 1 22 POTENTIAL.
FT CHAIN 23 101 LFCA-1 PROTEIN.
SQ SEQUENCE 101 AA; 11095 MW; EA41E20F CRC32;

Query Match 60.4%; Score 61; DB 13; Length 101;
Best Local Similarity 41.7%; Pred. No. 5.27e-01;
Matches 5; Conservative 4; Mismatches 3; Indels 0; Gaps 0;

Db 73 QICLNDAPWVR 84
:|||||:
QY 1 EICLDPKQKWI 12

RESULT 17
ID 093238; PRELIMINARY; PRT; 101 AA.
AC 093238;
DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
SQ SEQUENCE FROM N.A.


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RT genes by KSHV ";
RL SCIENCE 274:1739-1744(1996).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE: 97121480.
RA RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
RT PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
RT "Nucleotide sequence of the Kaposi sarcoma-associated herpesvirus
RT (HHV8)";
RL PROC. NATL. ACADE. SCI. U.S.A. 93:14862-14867(1996).
RN [3]
RP SEQUENCE FROM N.A.
RA RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
RT PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
RL SUBMITTED (OCT-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [4]
RP SEQUENCE FROM N.A.
RA NICHOLAS J., RUVOLO V.R., BURNS W.H., SANDFORD G., WAN X., CIUFO D.,
RT HENDRICKSON S., GUO H.G., HAYWARD G.S., REITZ M.S.;
RL SUBMITTED (NOV-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [5]
RP SEQUENCE FROM N.A.
RA RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
RT PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [6]
RP SEQUENCE FROM N.A.
RX MEDLINE: 97296220.
RA NEIPEL F., ALBRECHT J.C., FLECKENSTEIN B.;
RT "Cell-homologous genes in the Kaposi's sarcoma-associated rhadinovirus
RT human herpesvirus 8: determinants of its pathogenicity?";
RL J. VIROL. 71:4187-4192(1997).
RN [7]
RP SEQUENCE FROM N.A.
RA SUN R., LIN S.-F., MILLER G.;
RL SUBMITTED (SEP-1996) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: U75698; G1718266; -
DR EMBL: U74585; G1658273; -
DR EMBL: U93872; G2246346; -
DR EMBL: U71366; G3551763; -
DR PFAM: PF00048; 118; 1.
KW HYPOTHETICAL PROTEIN.
SQ SEQUENCE 95 AA; 10485 MW; 5283348D CRC32;

Query Match 57.4%; Score 58; DB 14; Length 95;
Best Local Similarity 41.7%; Pred. No. 2.10e+00;
Matches 5; Conservative 4; Mismatches 3; Indels 0; Gaps 0;

Db 74 QICADPSKNVR 85
QY 1 EICLDPKRWIQ 12

RESULT 22
ID 067634 PRELIMINARY; PRT; 203 AA.
AC 067634;
DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE ECO O PROTEIN (FRAGMENT)
OS GALLID HERPESVIRUS TYPE 1.
OC VIRUSES; DSDNA VIRUSES; NO RNA STAGE; HERPESVIRIDAE;
OC ALPHAHERPESVIRINAE; VARICELLOVIRUS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-GA;
RX MEDLINE: 96074534.
RA PENG Q., ZENG M., BHUIYAN Z.A., UBUKATA E., TANAKA A., NONOYAMA M.,
RA SHIRAZI Y.;
RT "Isolation and characterization of Marek's disease virus (MDV) cDNAs
RT mapping to the BamHI-12, BamHI-02, and BamHI-L fragments of the MDV
RT genome from lymphoblastoid cells transformed and persistently infected
RT with MDV.";

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RL VIROLOGY 213:590-599(1995).
DR EMBL: U34966; G1185444; -
DR PFAM: PF00048; 118; 1.
FT NON_TER
SQ SEQUENCE 203 AA; 23132 MW; 887D04C3 CRC32;

Query Match 57.4%; Score 58; DB 14; Length 203;
Best Local Similarity 45.5%; Pred. No. 2.10e+00;
Matches 5; Conservative 3; Mismatches 3; Indels 0; Gaps 0;

Db 145 VCYPDPAWQV 155
QY 2 ICIDPKRWIK 12

RESULT 23
ID P78423 PRELIMINARY; PRT; 397 AA.
AC P78423; 000672;
DT 01-MAY-1997 (TREMBLREL. 03, CREATED)
DT 01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE CX3C CHEMOKINE PRECURSOR.
GN A-1525.2.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE: 97177111.
RA BAZAN J.F., BACON K.B., HARDIMAN G., WANG W., SOO K., ROSSI D.,
RA GREAVES D.R., ZLOJNIR A., SCHALL T.J.;
RT "A new class of membrane-bound chemokine with a CX3C motif.";
RL NATURE 385:640-644(1997).
RN [2]
RP SEQUENCE FROM N.A.
RA ADAMS M.D., IOFTUS B.J., ZHOU L., CROSBY M., FUHRMANN J., MASON T.M.,
RA BRANDON R., KIM U.J., KERLAVAGE A.R., VENTER J.C.;
RT "Homo sapiens Chromosome 16 BAC clone C1987SK-A-1525.";
RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: U91835; G1899259; -
DR EMBL: U84487; G1888523; -
DR EMBL: AC004382; G3252821; -
DR PFAM: PF00048; 118; 1.
KW SIGNAL.
FT SIGNAL.
FT CHAIN 25 397 CX3C CHEMOKINE.
SQ SEQUENCE 397 AA; 42202 MW; C8093D7D CRC32;

Query Match 57.4%; Score 58; DB 4; Length 397;
Best Local Similarity 50.0%; Pred. No. 2.10e+00;
Matches 5; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Db 73 FCADPKQWV 82
QY 2 ICIDPKRWIK 11

RESULT 24
ID 082387 PRELIMINARY; PRT; 535 AA.
AC 082387;
DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE PUTATIVE CELL DIVISION PROTEIN.
GN T27A16.22
OS ARABIDOPSIS THALIANA (MOUSE-EAR CRESS).
OC EUKARYOTA; VIRIDIPLANTAE; CHAROPHYTA/EMBRYOPHYTA GROUP; EMBRYOPHYTA;
OC TRACHEOPHYTES; EUPHYLOPHYTES; SPERMATOPHYTA; MAGNOLIOPHYTA;
OC EUDICOTYLEDONS; ROSIDAE; CAPPARALES; BRASSICACEAE; ARABIDOPSIS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-CV. COLUMBIA;
RA ROUNSLEY S.D., LIN X., KAUL S., SHEA T.P., FUJII C.Y., MASON T.M.,

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RA SHEN M., RONNING C.M., FRASER C.M., SOMERVILLE C.R., VENTER J.C.;
 RT "Arabidopsis thaliana chromosome II BAC T27A16 genomic sequence.";
 RL SUBMITTED (SEP-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL; AC005496; G3582344; -
 KM CELL DIVISION.
 SO SEQUENCE 535 AA; 59484 MW; 8AF744C7 CRC32;

Query Match 57.4%; Score 58; DB 10; Length 535;
 Best Local Similarity 55.6%; Pred. No. 2.10e+00;
 Matches 5; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Db 97 VOLEVSKW 105
 ||:||||
 QY 2 ICLDPKQKW 10

RESULT 25 PRELIMINARY; PRT; 93 AA.
 AC 000626;
 DT 01-JUL-1997 (TREMBREL. 04, CREATED)
 DT 01-JUL-1997 (TREMBREL. 04, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBREL. 08, LAST ANNOTATION UPDATE)
 DE MACROPHAGE-DERIVED CHEMOKINE PRECURSOR.
 GN MDC OR A-15255.1
 OS HOMO SAPIENS (HUMAN).
 OC EURAROTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
 OC CATARRHINI; HOMINIDAE; HOMO.
 RN [1]
 RP SEQUENCE FROM N.A.
 RA GODISKA R., CHANTRY D., RAPORT C.J., SOZZANI S., ALLAVENA P.,
 RA MANTOVANI A., GRAY P.W.;
 RL J. EXP. MED. 185:0-0(0).
 RN [2]
 RP SEQUENCE FROM N.A.
 RA CHANG M.S., MCNICH J., ELIAS III C., MANTHEY C.L., GROSSHANS D.,
 RA MENG T., BOONE T., ANDREW D.P.;
 RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [3]
 RP SEQUENCE FROM N.A.
 RA ADAMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRMANN J., MASON T.M.,
 RA BRANDON R., KIM U.J., KERLAVAGE A.R., VENTER J.C.;
 RT "Homo sapiens chromosome 16 BAC clone C1987SK-A-15255.";
 RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL; U83171; G1931581; -
 DR EMBL; U83239; G2062425; -
 DR EMBL; AC004382; G3252820; -
 DR PFAM; PF00048; 118; 1.
 KM SIGNAL.
 FT SIGNAL. 1 24 POTENTIAL.
 FT CHAIN 25 93 MACROPHAGE-DERIVED CHEMOKINE.
 SO SEQUENCE 93 AA; 10580 MW; 65E6302 CRC32;

Query Match 56.4%; Score 57; DB 4; Length 93;
 Best Local Similarity 54.5%; Pred. No. 3.29e+00;
 Matches 6; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

Db 74 EICADPRVW 84
 ||| ||:|
 QY 1 EICLDPKQKW 11

RESULT 26 PRELIMINARY; PRT; 133 AA.
 AC 009002;
 DT 01-JUL-1997 (TREMBREL. 04, CREATED)
 DT 01-JUL-1997 (TREMBREL. 04, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBREL. 08, LAST ANNOTATION UPDATE)
 DE SMALL INDUCIBLE CYTOKINE A21 (TCA4).
 GN SCYA21.
 OS MUS MUSCULUS (MOUSE).
 OC EURAROTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
 OC SCUROGNATHI; MURIDAE; MURINAE; MUS.
 RN [1]

RP SEQUENCE FROM N.A.
 RC TISSUE-THMUS;
 RA TANABE S., LU Z., LUO Y., QUACKENBUSH E.J., BERMAN M.A.,
 RA COLLINS-RACIE L.A., MI S., REILLY C., LO D., JACOBS K.A., DORF M.E.;
 RL SUBMITTED (JUN-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 RN [2]
 RP SEQUENCE FROM N.A.
 RA MEDLINE; 97400322.
 RA HEDRICK J.A., ZLOTNIK A.;
 RT "Identification and characterization of a novel beta chemokine
 containing six conserved cysteines.";
 RL J. IMMUNOL. 159:1589-1593(1997).
 RN [3]
 RP SEQUENCE FROM N.A.
 RA HEDRICK J.A., ZLOTNIK A.;
 RL SUBMITTED (MAY-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL; AF006637; G2209189; -
 DR EMBL; AF001980; G2624927; -
 DR MGD; MGI:1097677; SCYA21.
 DR PFAM; PF00048; 118; 1.
 SO SEQUENCE 133 AA; 14558 MW; C0532523 CRC32;

Query Match 56.4%; Score 57; DB 11; Length 133;
 Best Local Similarity 41.7%; Pred. No. 3.29e+00;
 Matches 5; Conservative 4; Mismatches 3; Indels 0; Gaps 0;

Db 73 EICANPEEGWQ 84
 ||:|:|:|
 QY 1 EICLDPKQKW 12

RESULT 27 PRELIMINARY; PRT; 133 AA.
 AC 009006;
 DT 01-JUL-1997 (TREMBREL. 04, CREATED)
 DT 01-AUG-1998 (TREMBREL. 07, LAST SEQUENCE UPDATE)
 DT 01-NOV-1998 (TREMBREL. 08, LAST ANNOTATION UPDATE)
 DE BETA CHEMOKINE EXODUS-2.
 GN SCYA21.
 OS MUS MUSCULUS (MOUSE).
 OC EURAROTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
 OC SCUROGNATHI; MURIDAE; MURINAE; MUS.
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE-TOTAL FETUS;
 RX MEDLINE; 97444139.
 RA HROMAS R., KIM C.H., KLEMSZ M., KRATHWOHL M., FIFE K., COOPER S.,
 RA SCHNITZLEIN-BICK C., BROXMEYER H.E.;
 RT "Isolation and characterization of Exodus-2, a novel C-C chemokine
 with a unique 37-amino acid carboxyl-terminal extension.";
 RL J. IMMUNOL. 159:2554-2558(1997).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC TISSUE-TOTAL FETUS;
 RA HROMAS R.A.;
 RL SUBMITTED (JUN-1998) TO EMBL/GENBANK/DBJ DATA BANKS.
 DR EMBL; U88322; G3169697; -
 DR MGD; MGI:1097677; SCYA21.
 DR PFAM; PF00048; 118; 1.
 SO SEQUENCE 133 AA; 14600 MW; B34A5E22 CRC32;

Query Match 56.4%; Score 57; DB 11; Length 133;
 Best Local Similarity 41.7%; Pred. No. 3.29e+00;
 Matches 5; Conservative 4; Mismatches 3; Indels 0; Gaps 0;

Db 73 EICANPEEGWQ 84
 ||:|:|:|
 QY 1 EICLDPKQKW 12

RESULT 28 PRELIMINARY; PRT; 331 AA.
 ID 017348
 AC 017348;

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DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE H42K12.2 PROTEIN.
GN H42K12.2.
OS CAENORHABDITIS ELEGANS.
OC EUKARYOTA; METAZOA; NEMATODA; SECERNENTEA; RHABDITIA; RHABDITIDA;
OC RHABDITIA; RHABDITOIDEA; RHABDITIDAE; PELODERINAE; CAENORHABDITIS.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-BRISTOL N2;
RX MEDLINE: 94150718.
RA WILSON R., AINSOUCHE R., ANDERSON R., BAYNES C., BERKS M., BONFIELD J.,
RA BURTON J., CONNELL M., COPSEY T., COOPER J., COULSON A., CRAXTON M.,
RA DEAR S., DU Z., DURBIN R., FAVELLO A., FULLON L., GARDNER A., GREEN P.,
RA HAWKINS T., HILLIER L., JIER M., JOHNSTON L., JONES M., KERSHAW J.,
RA KIRSTEN J., LAISTER N., LATREILLE P., LIGHTNING J., LLOYD C.,
RA MCMURRAY A., MORTIMORE B., O'CALLAGHAN M., PARSONS J., PERCY C.,
RA REFFEN L., ROOPRA A., SAUNDERS D., SHONKKEEN R., SMALDON N., SKITH A.,
RA SONNHAMMER E., STADEN R., SUJSTON J., THIERRY-MIEG J., THOMAS K.,
RA VAUDIN M., VAUGHAN K., WATERSTON R., WATSON A., WEINSTOCK L.,
RA WILKINSON-SPROAT J., WOHLDMAN P.;
RT "2.2 Mb of contiguous nucleotide sequence from chromosome III of C.
RT elegans."
RL NATURE 368:32-38(1994).
RN [2]
RP SEQUENCE FROM N.A.
RC STRAIN-BRISTOL N2;
RA MAGGI L., HARPER M.;
RL SUBMITTED (OCT-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
RN [3]
RP SEQUENCE FROM N.A.
RC STRAIN-BRISTOL N2;
RA WATERSTON R.;
RL SUBMITTED (SEP-1997) TO EMBL/GENBANK/DBJ DATA BANKS.
DR EMBL: AF026207; G2435555; -.
SQ SEQUENCE 331 AA; 36627 MW; EA4C85EB CRC32;

Query Match
Best Local Similarity 40.0%; Score 57; DB 5; Length 331;
Matches 4; Conservative 4; Mismatches 2; Indels 0; Gaps 0;

Db 126 NVCSPERRW 135
QY :||| :|||
1 EICLDPKRW 10

RESULT 29
ID 099126 PRELIMINARY; PRT; 760 AA.
AC 099126;
DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
DT 01-MAY-1997 (TREMBLREL. 03, LAST ANNOTATION UPDATE)
DE CHITIN SYNTHETASE I.
GN CHS1.
OS USTILAGO MAYDIS (SMUT FUNGUS).
OC EUKARYOTA; FUNGI; BASIDIOMYCOTA; USTILAGINOMYCETES;
OC USTILAGINOMYCETIDAE; USTILAGINALES; USTILAGINACEAE; USTILAGO.
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-RK32 (A2B3);
RX XOCOSOSTE-CAZARES B., LEON-RAMIREZ C., RUIZ-HERRERA J.;
RA MICROBIOLOG 142:377-387(1996).
DR EMBL: X87748; G861151; -.
SQ SEQUENCE 760 AA; 85181 MW; 2F2AC4C9 CRC32;

Query Match
Best Local Similarity 56.4%; Score 57; DB 3; Length 760;
Matches 6; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Db 483 EICATRGKW 492
QY :||| :|||
1 EICLDPKRW 10

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RESULT 30
ID 093599 PRELIMINARY; PRT; 806 AA.
AC 093599;
DT 01-NOV-1998 (TREMBLREL. 08, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE TRANSCRIPTION FACTOR.
GN STAT3.
OS BRACHYDANTIO RERIO (ZEBRAFISH) (ZEBRA DANIO).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ACTINOPTERYGII; NEOPTERYGII;
OC TELEOSTEI; EUTELEOSTEI; OSTARIOPHYSI; CYPRINIFORMES; CYPRINOIDEA;
OC CYPRINIDAE; RASBORINAE; DANIO.
RN [1]
RP SEQUENCE FROM N.A.
RA OATES A.C.;
RL THESTS (1998), UNIVERSITY OF MELBOURNE, AUSTRALIA.
DR EMBL: AJ005693; E1326184; -.
SQ SEQUENCE 806 AA; 92151 MW; 5CEB46E0 CRC32;

Query Match
Best Local Similarity 56.4%; Score 57; DB 13; Length 806;
Matches 6; Conservative 2; Mismatches 3; Indels 0; Gaps 0;

Db 258 NICLDRLETWI 268
QY :||| :|||
1 EICLDPKRWI 11

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Job time : 30 secs.

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